

CONSTRUCTION OF GARRISON DAM 1959

Fertilizer Plant Will Employ 200

Bismarck Tribune 1-26-59

By JOHN O. HJELLE

RIVERDALE—Fertilizer sales for the North Dakota Nitrogen Company's proposed plant here will total 175,000 tons annually, an official of a Cincinnati, Ohio, firm which is involved in the plant's planning said here Thursday night.

Hart Dennis, assistant to the president of Chemical and Industrial Corporation of Cincinnati and their international company's director of marketing, made the statement in a talk to the Riverdale post-graduate Society of Military Engineers.

Dennis said it is hoped that final site negotiations can be completed to permit construction of the plant to begin this spring.

C. H. Ashlee, chemical engineer with Chemical and Industrial Corporation, was here with Dennis and participated in the discussion. Also attending the meeting was L. L. "Port" Munger, the Bismarck office of North Dakota Nitrogen.

HE SAID IT WILL TAKE approximately 24 months to complete construction of the entire plant but that it would be possible to begin production earlier by buying ammonia until the ammonia producing section of the plant has been completed.

Dennis reported that North Dakota Nitrogen Co. will import a "professional management team" to operate the Riverdale factory. An announcement of the name of the permanent new president of the company will be made Monday, Dennis said.

THE PLANT will employ about 200 men after it is in production and the employment peak during construction will be about 700 to 750 men.

Dennis said that in recent years the sale of fertilizer has grown by leaps and bounds and that North Dakota now is "the only void" in the United States without an integrated agricultural chemical manufacturing plant. There is one

said Dennis. He said the corporation has engineered and constructed about 75 per cent of the ammonia processing facilities in the United States in the last several years and about 50 per cent of those built abroad.

Work towards the Riverdale plant was started about 2½ years ago, said Dennis. Seven possible sites were studied and narrowed down to three with Riverdale as the Number 1 selection.

THE SECOND choice, would use crude oil instead of lignite as the base material and the third would use a combination of crude oil and gas.

Dennis said that several tons of lignite from Riverdale were sent to Germany where they were used in chemical plants, now in operation there.

"The gas from the North Dakota lignite was about 33 per cent better than that from any coal now being used in Europe," he said.

It will take nitrogen from the air and hydrogen from the lignite and phosphorus from imported rock, plus potash, to make a high quality fertilizer.

There is a good possibility, Dennis said, that stronger mixtures of fertilizer will be produced, plus some other products.

Dennis held out a hope for the ultimate greater use of lignite as an industrial chemical.

"I feel that in the next five to 10 years, coal—and not necessarily lignite—will come into its own for process work," he said.

THE RIVERDALE plant would use about 200,000 tons of lignite a year. It may be able to depend upon the lignite stockpiled there for eight years, depending upon whether that lignite is used only for processing or is used also for power, after which it will buy about 200,000 tons a year from commercial lignite miners.

Reduced to the simplest of terms, the several-sided factory will use lignite, water and air as its major

Eventually the plant may be added to so as to produce its own phosphoric acid, sulphuric acid and other chemicals.

Dennis and Ashley explained that the basic ingredients of oxygen, nitrogen and hydrogen available from the air, water and lignite could be used to develop an integrated chemical plant, going from process to process to get new chemicals. For example, a basic unit of the type planned for Riverdale could enter the field of solvents.

FREIGHT SHIPMENTS in and out of Riverdale will be vast when the plant is in full operation.

They will run to an estimated 170,000 tons of out-shipment a year and 70,000 tons of in-shipment. In peak periods up to 200 boxcars could be moving in and out of Riverdale on a given day.

Dennis was introduced by Col. Lynn W. Piine, post program chairman, and Erick Erickson, post president, presided.

The members voted to establish a \$100 college scholarship for a Riverdale High School graduate who will study engineering or science.

A. A. Mayer, president of the Bismarck Chamber of Commerce, was among guests introduced.

Worker On Dam Power Plant Hurt In Fall

Minot Daily News 1-24-59

GARRISON—John Freeman, an employee of P. S. Lord, mechanical contractors on a Garrison dam power plant job, is being treated in the Garrison Community Hospital for injuries received in a fall.

Freeman was working on the scroll case assembly when in two

Nitrogen Company Names President

Bismarck Tribune 1-26-59

A New York Airlines executive until 1942, when he joined the U. S. has been named president of North Dakota Nitrogen Co. It was announced Monday.

He is George C. Van Nostrand of New York City.

Van Nostrand's election was announced by Tom Kleppe of Bismarck, a member of the company's board of directors and its first president.

He will move to Bismarck during February to take charge of the company's operations. North Dakota Nitrogen is planning to build an agricultural chemical plant, for the manufacture of fertilizer, at Riverdale.

Van Nostrand was born in Fairfield, Iowa, and after attending Grinnell College and the University of Iowa, practiced law in Fairfield

until 1942, when he joined the U. S. has been named president of North Dakota Nitrogen Co. It was announced Monday.

Upon release from the service in 1946, he became associated with American Airlines and since 1954 has been vice president of properties and facilities, with offices in New York City.

He resides now in Greenwich, Conn., with his wife and son. Mrs. Van Nostrand is the former Elsie Sykora of Maple Lake, Minn. Their son, Clark, is 12 years of age.

North Dakota Nitrogen has been negotiating with the federal government for many months for the purchase of the lignite stockpiled at Riverdale in the building of Garrison Dam and for the use of other facilities there, including about 1,000 acres of land. The lignite will be the principal raw material for the fertilizer.

N.D. Group To Seek Mississippi Valley Backing Of Diversion Unit

Minot Daily News 1-29-59

A delegation of North Dakotans—with a mission—will leave Saturday for St. Louis, Mo., to attend a 3-day convention of the Mississippi Valley Assn.

The group will back the passage by the association of a resolution adopted by a special committee of the MVA at a meeting in Sioux City, Ia., in November which endorsed the Garrison Diversion project and urged its authorization by Congress.

The committee which drew the resolution was appointed by Charles Danforth, Yankton, S.D., Mississippi Valley Assn. president, in an effort to resolve differences between downstream and upstream interests in the basin. At the association meeting a year ago a downstream group defeated a resolution of endorsement for the project.

In the North Dakota delegation

will be A. B. Christensen, Minot, and William Corwin, Fargo, representing the North Dakota Water Conservation commission; Mayor Maurice Harrington, Minot; Henry Steinhilber, Donnybrook; Roy Holand, LaMoure; Vernon Cooper, Bismarck; and Clarence Jensen, Esmond, representing the Garrison Diversion Council's district board; O. S. Brown, Minot, and R. L. Dugan, Devils Lake, representing the Missouri-Souris Projects Assn.; Robert Huey and H. A. Hendrickson, representing the Fargo Chamber of Commerce; and Bruce Johnson, Bismarck, representing the Bureau of Reclamation.

ed by Dennis, will be basically a nitrogen plant, employing processes which have been in use in Germany and elsewhere in Europe for years to produce nitrogenous fertilizer from lignite, and other substances.

Water and electric power are extremely important to the process, said Dennis. The plant will use about 41,000 tons of phosphoric rock a year.

The plant will be built to operate continuously — 24 hours a day, seven days a week, 350 days a year, Dennis said.

To illustrate the amount of water it will require, he said its demands will be equal to those of the entire population of North Dakota today. A Idaho, Utah or Illinois, and brought 30-inch pipe running full constant in liquid form in tank cars for the ly will carry water to the plant.

MOST OF THE water is for cooling purposes and will be returned to the river as clean as when it was removed.

The Cincinnati corporation is engineering and economic consultant to North Dakota Nitrogen and is the only company "solely devoted to this particular phase of the agricultural chemical industry."

from the air. Through a series of chemical processes which result in the carbonization of the hydrogen and nitrogen, ammonia will be formed.

A part of the ammonia is then used to produce nitric acid, used along with ammonia, phosphate rock, phosphoric acid and muriate of potash to produce complex fertilizers, while another part of the ammonia is used with nitric acid to produce prilled ammonium nitrate, which is 33.5 per cent nitrogen.

THE PHOSPHATE ROCK probably will be shipped in from west- example those in Utah and Idaho. Phosphoric acid probably will be purchased in small amounts from ulation of North Dakota today. A Idaho, Utah or Illinois, and brought 30-inch pipe running full constant in liquid form in tank cars for the ly will carry water to the plant. time begin. Muriate of potash may be obtained from new mines opened recently in the Saskatoon and Esterhazy vicinities in Can-

ternal injuries in his fall, and some broken ribs. The morning report on him at the hospital said his condition is improving and his recovery indicated.

U.S. Pays \$21,495,085 For Property Lost To Reservoir

Minot Daily News 1-30-1977

RIVERDALE — With the relocation and land acquisition programs for Garrison dam and reservoir now virtually complete, a total of \$21,495,085 has been paid out by the U. S. government through the Garrison District Corps of Engineers.

The program included acquisition of land, facilities, moving of families and relocation of facilities that had to be moved.

In the relocation category were the towns of Sanish, Van Hook, Elbowoods and their reestablishment at New Town.

The county getting the largest total payment was McLean, \$5,122,060, which also had the largest acreage loss, 161,602 acres.

Land in Williams and McKenzie counties was acquired after the discovery of oil, adding to the cost the factor of depreciation in the

value of mineral rights. The table shows the number of acres acquired and total price paid in each of the counties losing land to the dam and reservoir.

COUNTY	ACRES	AMOUNT
Dunn	61,677	\$ 1,982,978
McKenzie	70,997	4,566,885
McLean	161,602	5,122,060
Mercer	51,650	1,557,225
Mountrail	65,320	3,997,028
Williams	51,652	4,268,909
	462,898	\$21,495,085

Water Plant Contract

Signed

Calls For Work To Be Completed By Dec. 31, 1960

1-8-59 Williston Herald (ND)

By DAN HALLIGAN

Williston's long-sought water plant was officially realized this morning after 14 years of planning, negotiating, arguing, wishful thinking and verbal fireworks.

The 1944 beginning was culminated shortly after 9 o'clock this morning at city hall when Commission President Alec Rawitscher, Assistant City Auditor May Bell and Col. Lynn W. Pine, commanding officer of the Garrison District Army Corps of Engineers, signed a federal government-city contract authorizing the payment of \$1,300,000 to Williston in cash, materials and labor for the new system.

Both sides expressed extreme pleasure that the long years of negotiations had ended and work on the project would begin this spring.

However, historic as the contract signing was, Williston residents still face two more summers of using on occasion discolored and strong-smelling water and possibly water rationing. The contract for the water plant calls for completion no later than Dec. 31, 1960.

The contract signing was done at a continuation of the recessed meeting from Wednesday night



IT'S FINALLY OFFICIAL — Williston will have clean water and as much as each resident reasonably wants to use no later than Dec. 31, 1960, after the city commission signed a contract this morning officially accepting \$1,300,000 from the Army Corps of Engineers. The money will come in cash, materials and labor. Commission President Alec Rawitscher is shown signing for the city while Col. Lynn W. Pine signed for the Army Corps of Engineers. Looking on, left to right, are Commissioners Harry England, Bob Falstad, Les Lohse and Carl Albers.

The regularly scheduled Tuesday night meeting was delayed 24 hours in order that the entire commission board could meet with Col. Pine and his staff and consulting engineers, Messrs. W. A. Burdick and Willard Webster.

Division, Army Corps of Engineers headquarters at Omaha still must approve the contract. However, Col. Pine said he was certain approval would be given within two to four weeks. After the signing of the contract, the city will now confer with officials of the Corps branch in Williston in any future meetings.

The first phase of the project will begin this spring with the calling of bids for a new garbage dump east of Williston. The city will receive \$38,000 for payment of bills for the building and fence that will be on the property. More than half of the money will be used to buy a tractor. After completion of the work the city will receive a \$73,000 cash payment for operating costs at the dump for the next 25 years.

Bids will also be asked for by the city for the sewage lift station which will be built west of the present dump grounds. The government will give \$73,000 for construction costs.

The Engineers, however, will handle the construction of the lagoons and pipe to the pumping station. When that work is complete and the unit is operating, the city will be given \$50,000 for 25 years of operating expenses.

The city will also build the water plant intake system, grit chamber, presedimentation basin, pumping station and force main for which \$994,000 will be paid out by the government for construction expenses incurred during the period of work.

However, if the foregoing installations can be built for less than \$994,000, the payment will be less. After the plant is in operation, the city will be given \$75,000 for operating expenses over the next 25 years.

Reclamation Official Says Conservancy District Needed For Oahe Irrigation Job

PIERRE, S. D. (AP)—The size and complexity of the Oahe irrigation project calls for a conservancy district to make it workable, says S. Reclamation Commissioner A. Dexheimer.

He traced South Dakota reclamation development in a talk to the Reclamation Assn. as having started in the west. But, he said, future development must come largely in the east.

The Oahe project, he said, is one of the largest potential irrigation projects remaining to be built in the nation.

Costly investigation has been under way on feasibility of the project and a final report is due in the summer of 1960 that will tell farmers within close limits what construction, operation and maintenance costs would be. Local interest will decide whether the project will be built, he stressed.

The magnitude of the project will require it be constructed in several stages over a considerable period of time, Dexheimer said. Water supply works would have to be built larger than needed to serve the first irrigation districts that would be organized.

Here, he said, is where a conservancy district would come in to carry financing.

He referred to the Garrison Division Conservancy District in North Dakota as a model.

In a review of reclamation work currently being developed, Dexheimer said small pumping units along the Missouri River are developable to provide a reliable base for livestock herds and

for stabilizing agriculture. Tracing earlier work in the western part of the state, he said: "The Angostura unit is a development to which you can point with pride. Crop production and farm income from this unit are probably six times what they were prior to the availability of water for irrigation."

Dexheimer said "we are just now reaching the point where the evidence may support a decision to irrigate from Shadewell Reservoir."

But he called the outlook frankly not too good for development west of the Missouri beyond projects now under way or completed.

There is no feasible development

along the Bad River and only a minor amount on the White River. A small amount of new land along Rapid Creek could be served from Pactola Reservoir.

In summary, Dexheimer said recent population estimates show South Dakota gaining only 12.9 per cent in population by 1975 compared to a national increase of 35 per cent.

This, he said, meant an indicated loss of many of the state's young people to other states.

It could be countered by reclamation he said, in that "you have one of the nation's most valuable resources flowing through your state."

Missouri River Dams Set Power Production Records

Power production at the main stem dams on the Missouri river set records for the month of December and for the year 1958, the Missouri River Reservoir Control Center at Omaha, Neb., reported today.

Garrison set the pace in power production in December with 93 million kilowatt-hours but also suffered the heaviest drawdown with a net loss of 234,000 acre feet, dropping the reservoir level 1.3 feet to a pool elevation of 1793.5 feet mean seal level.

Fort Peck, which produced 50

million kilowatt-hours of electricity, had a net storage loss of 42,000 acre feet.

Total power production for the month by all the main stem dams came to 213 million kilowatt-hours, 28 per cent greater than the December, 1957, production.

While the year produced no flood control demands upon the reservoirs—one of their primary functions—power production—increased substantially and flow regulations efficiently served downstream requirements. A 28 percent increase in power production was recorded at the four hydro power plants in the month of December over December 1957.

This December power step-up followed the general pattern of the entire year. Total system generation for the year was 3,554 million kilowatt hours—17 percent higher than for the calendar year 1957.

A special feature of the December reservoir operating procedure involved temporary increases in flow releases at the Gavins Point Dam to offset low river flows caused by severe cold weather and resulting river ice blocks. Releases at Gavins Point had been held at the planned schedule of 7600 feet per second until December 4.

Dexheimer Offers Garrison As Model For Oahe Project

PIERRE, S. D. (AP)—The size and complexity of the Oahe irrigation project calls for a conservancy district to make it workable, says U.S. Reclamation Commissioner W. A. Dexheimer.

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The Oahe project, he said, is one of the largest potential irrigation units remaining to be built in the nation. A costly investigation has been under way on feasibility of the project and a final report is due in the summer of 1960 that will tell farmers within close limits what construction, operation and maintenance costs would be. Local interest will decide whether the project will be built, he stressed.

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Contract Signed

Williston Maps Relocation Projects

WILLISTON — The City Commission is pushing plans forward for establishing facilities to be displaced by Garrison reservoir following the formal signing of a contract Thursday which calls for participation of the federal government to the extent of \$1.3 million.

The basic settlement agreement was reached last September and the contract was formally signed Thursday by Col. Lynn W. Pine, Garrison district engineer for the Corps of Engineers, representing the government.

Williston has been dickering with the government over the settlement for more than a decade and in 1957 had introduced a bill in

Budget Report Set Soon On Garrison

ISMARCK (AP)—State engineer Milo W. Holtsveen said Friday the word from Washington is that the budget will

Water Commission and the Governor's Co-ordinating Committee has been scheduled Jan. 16 in

ary.
disbeen added that congress-
have said if this timetable is
owed, hearings will be held on
Garrison Diversion bill by
at April 1.
ne bill in question is a reauth-
ation for diversion of water
i the Missouri River for irri-
on of a million acres in North
ota. The 1944 flood control act
authorized this diversion, but
r plans changed the point of
ersion from Fort Peck Dam in
utana to Garrison Dam in
th Dakota.
eclamation leaders have been
king toward congressional ap-
val of the authorization so
work then can start on seek-
actual construction funds for
canals and other projects
ch will be part of the diver-
system.
joint meeting of the State

Dakota witnesses to Washington
to testify on the diversion bill.

The Budget Bureau will report
to Congress its views on how the
big irrigation project would fit
into the general economy. Once
this report is out, committees and
subcommittees in both Senate and
House can schedule hearings on
the bill.

The Water Commssion also will
hold its own regular meeting Jan.
16. One item on the agenda is for
a dam on a tributary of the Can-
nonball River northwest of Sel-
fridge, in Sioux County.

The Governor's Garrison Div-
ersion Co-ordinating Committee
includes former Gov. Norman
Bruinsdale and 20 of the state's
reclamation leaders.

ere increased by 1000 cubic feet
per second about mid-day on De-
cember 4. As the pattern of severe
cold weather developed and be-
came prolonged, ice blocks formed
along the river from Sioux City,
Iowa, to Leavenworth, Kan.

To meet this emergency situ-
ation and to minimize periods of
very low stages in the river, reser-
voir releases were held above nor-
mal winter needs until December
22. Releases during this period
reached a maximum of 11,000 cfs.
This again demonstrated the flexi-
bility of flow regulation made pos-
sible by reservoir controls to meet
emergency river flow conditions.

Total main stem system water
storage at midnight on December
31, 1958 stood at approximately
20.9 million acre-feet. This was
approximately the same as at the
beginning of December, and al-
most one million acre feet greater
than on December 31, 1957.

amount was included in an omni-
bus authorization bill for rivers and
harbors that was vetoed by Presi-
dent Elschhewer.

Largest project involved is the
replacement of the municipal
water plant expected to approach
\$1 million. The project is to be
completed by Dec. 31, 1960.

The first job to be undertaken
is the providing of a sanitary land-
fill garbage dump on which bids
will be called in the spring. Other
projects include a sewage lagoon,
intake structure and 5-mile water
line.

mation ne said; in that "you have
one of the nation's most valuable
resources flowing through your
state."

Pool's Elevation Bismarck Tribune Dips in December

RIVERDALE—The Corps of En-
gineers reports the Garrison Res-
ervoir pool level at Dec. 31 at
1,793.5 feet above mean sea level
for a drop of 1.3 feet from the
previous month.

Water in storage was 7,750,000
acre-feet with 2,250,000 acre-feet of
net usable storage above minimum
pool levels established for power,
recreation, irrigation, diversions
and other purposes.

The month's releases of water
at Garrison totalled 909,000 acre-
feet, all of which was used for
power generation which totalled
93,000,000 kilowatt hours.

The Fish Are Biting In Area

1-15-59

McLean County Independent



Displaying a 20 pound two ounce northern caught Tuesday noon is Rudolf Folden of Raub, on the right. Helping him hold up the fish is Albert Jorgenson of Roseglen who was along with the big one was caught.

The fish was caught through

the ice of Garrison Reservoir south of the Bill Iglehart farm of Emmet.

Folden said he used sucker bait. He was really excited about this fine catch. The fish was 41 inches in length. It was weighed in at Coast to Coast store.

More Funds for Big Dams . . .

State Projects Included In Missouri Basin Plans

Great Falls Tribune 1-20-59

WASHINGTON (AP) — A sizable increase in funds to push ahead on big dam projects in the Missouri River Basin was asked Monday by President Eisenhower for the year beginning July 1.

This is part of the costly job of harnessing the Missouri for flood control, irrigation, power and other purposes, authorized in 1944. Some of the projects in the vast program have been completed or are nearing completion.

In his budget message to Congress the President recommended \$60,750,000 to continue work by the Army Engineers on five dams and reservoirs compared with about \$1 1/2 million provided by Congress for the year ending June 30.

He also asked \$43,115,340 for reclamation work in the basin. This would be a slight reduction from the \$44,000,000 provided by Congress for the present fiscal year. The President asked \$5,150,000 to continue work on the Garrison Dam and reservoir in North Dakota, the main control structure on the Missouri. This compares with \$9,853,710 expected to be spent in the current year.

A spokesman for the Army Engineers said the Garrison Dam, estimated to cost 294 million dollars, will be 95 per cent completed by June 30.

The President asked \$8,350,000 to continue work on the second power plant at Fort Peck Dam in Montana, estimated to cost \$28,900,000. Congress so far has provided \$10,316,000 for it. This unit now has a capacity of 85,000 kilowatts of power. The new work will add another 80,000 kilowatts.

A breakdown of the \$40,989,694 budgeted for reclamation works as part of the Missouri River Basin program includes:

Helena Valley Unit, Mont. — \$2,182,000 for completing laterals and

16 Great Falls Tribune

Friday, Jan. 16, 1959

Flood-Control Proposals Unsatisfactory to City

Dissatisfaction with the Army Engineers' "dike and ditch" Sun River flood control program for West Great Falls was expressed during a special city council meeting called to discuss financing of the project Wednesday night.

Aldermen adopted a motion to advise the Montana congressional delegation that the city is dissatisfied with the proposed flood control plans of the Army Engineers and to request that other methods of flood control be investigated. The initial motion advanced by Mrs. John Nelson Hall was followed by one fostered by William Swanberg asking that the Army Engineers be contacted regarding the possibilities of breaking the

West Side project into three separate segments. There are three phases of the Sun River flood control project as outlined by the Army Engineers. One phase calls for a ditching system diverting Watson Creek into the Sun River farther upstream from the city. A second phase calls for diking the Sun River, and a third, diking the Country Club addition. The effect of Swanberg's motion passed by aldermen was to determine if the engineers would approve participation in the work if the projects were broken down into the three segments.

The council chambers were filled to near capacity with interested persons, largely residents of the areas affected by the flood control proposals.

Lloyd Crossford, whose West Side home is located on the route of the proposed Sun River dike, told the meeting that he would fight to the Supreme Court of the United States any effort to run the dike through his property.

The city's share of the proposed project has been estimated at about \$750,000 for purchase of right-of-way for ditches and dikes. However, Mayor John W. Steffani expressed confidence the right-of-way could be secured for less. He said the city will explore other possibilities.

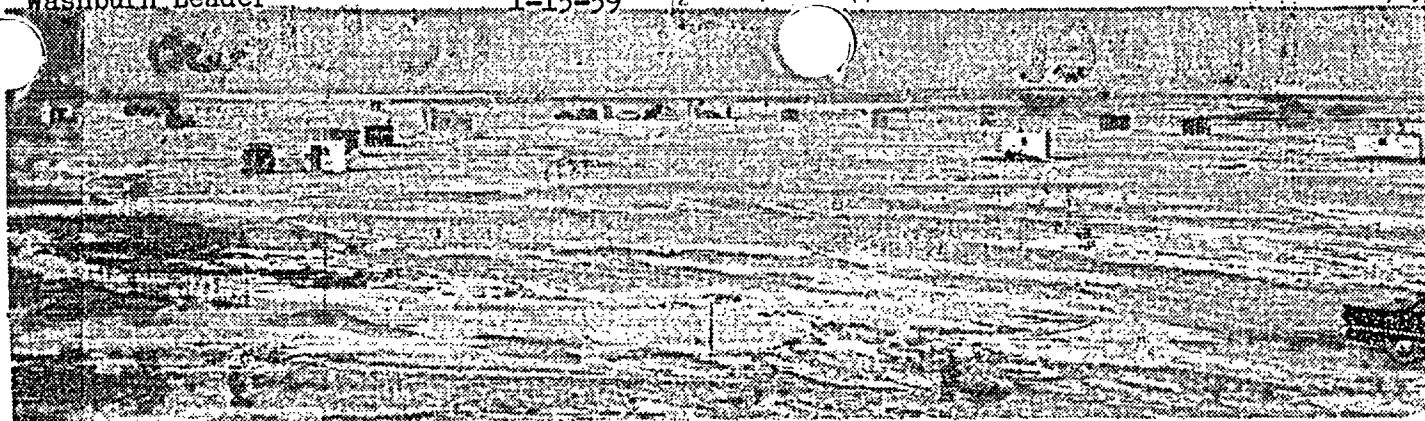
When financing of the project was discussed, there appeared to be a strong feeling that a bond issue to carry the local share of

502,000 for Bureau of Reclamation project construction in Montana and North Dakota on the Fort Peck project and these Bureau of Reclamation rehabilitation projects in Montana: Bitterroot, \$1,076; Huntley, \$130,000; Sun River, \$27,000; Milk River water rights studies, \$40,000.

Also requested was \$645,000 for drainage and minor construction work in Colorado, Kansas, Montana, Nebraska, South Dakota, and Wyoming. The President proposed \$2,000,000 for project investigations in Colorado, Kansas, Montana, Nebraska, North and South Dakota and Wyoming. This would include preparation of definite plans reports on the Garrison diversion unit in North Dakota, but no specific amount was allocated for this.

flood control advanced during the meeting included dredging the mouth of the Sun River and dredging the adjacent Missouri River bed. It also was suggested that Watson Coulee could be diverted to the Missouri River rather than into the Sun.

Diversion of Little Muddy Creek into Benton Lake wildlife refuge has been projected in Congress to improve the refuge. It was pointed out during the meeting that construction of the proposed Sun Butte dam as a Sun River flood control measure had been opposed by sportsmen and wildlife groups.



RIVERDALE — Widespread fishing activity on the ice of Garrison Reservoir brings with it the hazard of accidents which might have serious consequences, the Army Engineers warned today. They cautioned motorists against using the ice as

a "highway" in distance driving. "Many springs exist at the mouths of bays such as Wolf and Snake creeks, and if a motorist drives long enough on the ice he is bound to hit one of them," said Shirley Von Eschen, reservoir manager. A Turtle Lake fisherman last week struck a weak spot in

the ice. The wheels, on one side of his car went through, but he was extricated before anything serious happened, according to Von Eschen. Photo shows a portion of the approximately 100 fishhouses that dot the ice in the Snake Creek arm. The main reservoir is seen dimly in the distance.

N. D. Witnesses To Be Chosen To Appear In Support Of Garrison Diversion Bill

FARGO FORUM 1-17-59

BISMARCK, N. D. (AP) — Wheels started turning Friday to select witnesses to appear before congressional committees in Washington in the spring in support of a bill to re-authorize the Garrison Diversion unit.

Committees to choose witnesses and line up the testimony they will give were chosen at a joint meeting of the State Water Commission and the governor's coordinating committee on Garrison diversion.

The U. S. Bureau of the budget — which has the power to ap-

prove the diversion project or turn thumbs down in the interest of national economy — is expected to report on the diversion project late this month.

If the budget report reaches Congress by March 1, hearings can be held before Senate or House committees in April.

Diversion of Missouri River water for irrigation in North Dakota was originally authorized in the 1944 Flood Control Act, but this called for diverting river water at Fort Peck Dam in Montana. Later studies showed this unfeasible.

New bills in Congress revise the 1944 plan to authorize diversion at Garrison reservoir to send water through a branching network of canals and natural bodies of water to irrigate one million acres in North Dakota.

Gov. John E. Davis will head a committee to select witnesses for the hearings, and likely will appear to testify himself.

S. W. Thompson, Warwick, was named to head a statement coordinating committee. Mrs. Daphna Nygaard, Jamestown, will head a congressional contact committee, and state Rep. L. C. Mueller, Oakes, will head the Transportation and Finance Committee.

The groups appeared confident that the budget bureau will report favorably on the diversion bill. Davis said there has been a distinct improvement in relations with lower basin interests, who in the past have opposed diversion of river water for irrigation use.

Mueller, who is president of the North Dakota Reclamation Assn.,



COL. LYNN W. PINE

★ ★ ★
Col. Pine
To Leave

335,000 see
Garrison Dam

RIVERDALE — A total of 335,000 visitors came to Garrison Dam and Reservoir project during 1958, according to a tabulation made by the Army Engineers. This represents a gain of approximately 43,000 over 1957.

Last year's total included travelers from 42 of the 49 states and from 10 foreign countries. The visitor total at Fort Peck Dam, Mont., for the year just past was 124,000, a figure approximately the same as that for the previous year.

During the season of 1958 there were 563 pleasure boats licensed by the Corps of Engineers to operate on Garrison Reservoir. These included the craft of nine boat clubs which represented New Town, Parshall, Halliday, Garrison, Minot, Riverdale, Underwood, Wilton and Bismarck. At the close of the 1958 season, three concessionaires serving the fishing and boating public were in operation on Garrison Reservoir and one on Fort Peck. These concessionaires are licensed by Garrison District of the Corps of Engineers.

IN THE ARMY for about 18 years, he has held commissions from captain to colonel, serving in Japan, the Panama Canal Zone, Turkey and France. Besides Germany. Before entering the Army he held several civilian positions with the Corps of Engineers.

During his tenure as Garrison district engineer, he supervised completion of the Garrison Dam spillway, initiated work on Units 4 and 5 of the Garrison Dam power plant and a second power plant at Fort Peck Dam in Montana, and supervised preliminary planning on several flood control construction projects in the district.

Soon after he came to Riverdale the old Fort Peck district was consolidated with the Garrison district, giving the Garrison District engineer jurisdiction over central and western North Dakota, Montana east of the continental divide and northern Wyoming.

PINE SAID THE accomplishments which were most gratifying to him during his tenure here included the settlement of the long-standing controversy over government payments for municipal facilities at Williston to be affected

Irrigation's Value To N. D. Cited to

1-15-59

Bismarck Tribune

DEVILS LAKE — Growth of the agriculture, North Dakota's basic industry, lies in the state's ability to develop its water resources to the maximum as quickly as possible, State Engineer Milo W. Hoisveen told more than 250 delegates at the North Dakota County Commissioners Assn. convention here Wednesday. Hoisveen warned that continuation for the valuable water resources is continually growing. Should the state fail to take advantage of its present opportunities, he said, the availability of such opportunities "may be canceled for North Dakota's future generations."

The Garrison Diversion program, chief state water conservation project, will directly affect 25 eastern and central North Dakota counties by providing water for 1,700,000 acres in the area. The project will indirectly affect the rest of the state by broadening the total state tax base, he said.

Other speakers Wednesday included State Examiner George H. Buss and Road Examiner O. L. Hagen. Officers were to be elected at a business meeting Wednesday afternoon and the annual banquet was set Wednesday night.

State Highway Commissioner A. W. Wentz emphasized the need for long-range planning and maximum efficiency in development of local roads in addressing the commissioners Tuesday afternoon.

Other speakers Tuesday were Helgi Johanson and Kenneth M. Jakes, assistants in the attorney general's department, and Floyd Henderson, state veterans affairs commissioner.

that committees of each group will meet next Friday in Bismarck to discuss amalgamation of the two organizations.

Members of the witness selection committee for the Congress hearings are Davis, State Engineer Milo Hoisveen, Herb Lyons of Jamestown, Oscar N. Berg of Minot and Roy Holand of La Motre.

Members of the statement coordinating committee are Thompson, President Fred S. Hultz of North Dakota Agricultural College, Dushinske, Harry Polk of Williston and Vernon S. Cooper of Bismarck.

Rep. Quentin Burdick (D-ND) Friday was named to the House Insular Affairs Committee.

Burdick said he was pleased with the appointment because it will "allow me to work directly for expanded water resources programs in general, and Garrison Dam diversion in particular."

Riverdale

Bismarck Tribune
RIVERDALE — Col. Lynn W. Pine, Garrison district engineer for the past three years, has been nominated to be chief of the United States military mission at La Paz, Bolivia, orders from Washington headquarters of the Army revealed Thursday.

He will be succeeded as Garrison District Engineer by Lt. Col. Walter W. Hogrefe, now in Korea. The changeover is expected to take place in early April.

Pine told The Tribune recently, however, that he expects to leave for Monterey about March 10.

Pine will go to Bolivia after a six-month course in Spanish at the Army language school at Monterey, Calif., and further schooling in

Dam and the initiation of negotiations which now appear to be assured for the establishment of a multi-million dollar agricultural chemical plant at Riverdale.

Active in the affairs of the American Society of Military Engineers, he was influential in the establishment of the first North Dakota post of that society at Riverdale two years ago and since then has helped establish posts at Bismarck, Minot and Ft. Peck, Mont. He was one of two North Dakota members of the International Commission on Large Dams and served as host at Garrison Dam last September when a group of internationally known engineers visited the project following their congress in New York.

A native of Illinois, he is a civil engineering graduate of the University of Illinois.

Pine said Thursday that he and Mrs. Pine "count our years in North Dakota as the most enjoyable of our lives and regret the necessity of departing."

Editorials

Bismarck (N.D.) Tribune 21 Jan 1959

Thank You, Colonel Pine

Colonel Lynn W. Pine, who will leave his post as Garrison District engineer in a couple of months, will be able to look back upon several outstanding accomplishments during his tour of duty at Riverdale.

It was his pleasure, no doubt, to be in charge of the district when various activities which had been under way for some years came to a head, permitting their definite disposition.

However, it was largely through his personal energy and perseverance that some of these things were accomplished. For this he is apt to get no military decorations but they entitle him to the enduring compliments and appreciation of North Dakota people and the various agencies affected.

Not the least of these achievements is the settlement of the long-lasting problem as to the compensation justly due Williston for municipal facilities which will be affected by Garrison Reservoir waters at their eventual maximum level. The negotiations spanned the tenures of several district engineers, but during Pine's command they were brought to a conclusion.

Greatest of all the achievements recorded during his period as Garrison District engineer, how-

others, as witness the conclusions contained in the so-called "Little Report," which was caused to be made by Twin Cities industrial and business leaders and which focused attention on lignite.

Through all these years, however, little or no industrial use has been made of lignite except as a fuel, and even that use has been relatively limited.

Now the North Dakota Nitrogen Corporation contemplates the construction of a sizeable plant at Riverdale, the principal output of which will be nitrogenous fertilizer, a product the use of which is growing by leaps and bounds.

The Riverdale plant could be just the first of many industrial chemical uses of lignite.

Of course, the actual sale of the lignite, stockpiled by the mining of the dam as it was moved with the dirt that went into the embankment, is important in itself. This did away with the knotty problem of how to dispose of the stockpile without disrupting the commercial lignite mining industry.

Beyond this, fruition of the Nitrogen company's plans will mean the preservation of Riverdale as a North Dakota community. Other similar dam towns have vanished when construction has ended.

stockpile to a new corporation which proposes to use it in the manufacture of agricultural chemicals.

This was notable because it could be the trigger on developments almost as sweeping in their effects as the building of the dam itself.

North Dakotans long have believed that the billions of tons of recoverable lignite close to the surface of the ground in the western part of the state eventually will be the base for substantial industrial development. So have

future, it is doubtful if any will be more immediately important to a large number of people than his work here. Whatever is done or accomplished in an organization as huge as the United States Army and its various arms cannot, of course, ever be attributed to just one man, no matter who he is. But the right man in the right place at the right time can accomplish a lot, even in the Army. And Colonel Pine appears to have been the right man in the right place at the right time to get these important jobs done at Riverdale.

By The News
Capitol Bureau
ACK — A resolution putting North Dakota legislature on record as demanding early transmittal of the Garrison diversion report to Congress saw Republicans and Democrats in the Senate in unanimous agreement Wednesday.

The resolution had in fact been sponsored by the Senate Democratic minority leader, Ray Vendsel of Carpio and was seconded by a Republican, Sen. Frank Wenstrom of Williston.

It passed without a dissenting vote and was sent to the House for consideration where it is expected just as prompt action will be taken.

Because of the importance the feels is attached to the proposed project, Sen. Wenstrom addressed the Senate at some length in his seconding speech, stressing Gov. John E. Davis had recommended such action in his message to the joint chambers, also emphasizing

passage of the resolution would indicate the support of the North Dakota legislature of the efforts of all the leaders and proponents of the Garrison Diversion project toward obtaining an early transmittal of the project report from the executive branch of our federal government to the Congress.

Wenstrom noted that the support for the Diversion had always been bi-partisan.

"Even before North Dakota became a state we were fortunate to have had men of vision, men who saw in the Missouri river, an opportunity for new wealth for their state," Wenstrom said. "They recognized that the only assured water supply that was available to North Dakota existed in the Missouri river."

He said that the North Dakota Water Conservation commission was established in 1937 during the administration of Gov. William Langer; that Gov. John Moses was one of the leaders among the governors of the Missouri basin states

in establishing the Missouri River States commission, an organization through which the voice of the states of the basin could be heard; that Gov. Fred C. Anderson was first named in the plan for the North Dakota water development project; and that the plan was a coordinated effort of all federal agencies.

Gov. Norman Brundage must be given credit for much of the progress that has been made in North Dakota on the Diversion project including the establishment of the 25-county Garrison Diversion Conservancy district and that Gov. Davis has actively worked to secure the united support from all states in the Missouri river basin for the Garrison Diversion project.

This united support, said Wenstrom, is vital if the project is to be brought to its successful culmination.

N.D. Seeks Ample Diversion Planning Funds; Eyes 'No-New-Starts' Suggestion

Minot Daily News 1-20-59

North Dakota reclamationists are viewing with some alarm a renewal by President Eisenhower of his no-new-starts recommendation for reclamation projects in the nation.

While the ban on new projects, if supported by Congress, would have no immediate far-reaching effect in North Dakota, it would tend to make the "waiting list" longer when the Garrison Diversion project is reauthorized.

The North Dakotans hope to get that reauthorization in the current session of Congress.

Congress last year ignored the President's recommendations and voted funds to start a number of new projects. However, the President said work on most of them is being limited to pre-construction activities.

North Dakota reclamationists, in addition to being concerned about reauthorization, also are watching closely the amount that will be earmarked for continued pre-construction investigation on

To keep the Diversion project planning at its present pace would take an estimated \$640,000. That's the amount the Bureau of Reclamation will spend on the job in the year ending June 30.

A telegram to The News from Sen. Milton R. Young (R-ND) advised that \$550,000 had been earmarked in the budget for continuing work on Garrison Diversion investigations. That compares with \$487,000 appropriated for this year's operations. The balance of the \$640,000 expected to be spent this year is made up of transfers from other funds within the Department of the Interior. How much would be available, if any, from other funds next year is hard to determine at this early date.

However, the current word from Washington — passed on to North Dakotans by Fred Fredrickson, Washington representative of the Greater North Dakota Assn. — is that it is likely that the Diversion investigations

detailed work which includes land classification on each individual farm and detailed layouts of canals and laterals. Out of this phase of the investigations comes the final estimates and construction design.

Johnson said there has been a great deal of misunderstanding about what has often been labeled "the definite plan report" for the project which is currently awaiting approval of the Bureau of the Budget before submission to Congress for reauthorization.

Actually, it is a "definite plan report" only to the extent of the planning of the actual diversion of water from Garrison reservoir to the main delivery points. The balance of the report is based on semi-detailed and reconnaissance surveys to arrive at preliminary estimated costs and feasibility ratios. With the approval of that report, the Bureau of Reclamation must fill in with detailed studies on local delivery works and appli-

cation on the individual farm unit. There has also been considerable difference of opinion on the question of whether Congress is being asked for "modification," "authorization," or "reauthorization" of the project.

Because the old Missouri-Souris project originally was authorized as part of the Pick-Sloan plan for development of the Missouri basin, many N.-D. reclamationists feel that only approval of a "modification" of the project is being asked of Congress.

In the halls of Congress, however, the word "authorization" is widely used on the grounds that the report soon to be submitted is the first giving cost and benefit details on a specific project.

Still others, advancing North Dakota's cause, are using the word "re-authorization" which suggests the earlier approval of the Missouri-Souris project and perhaps could have a bearing in assigning the project higher on the priority list once it gets the blessing of Congress.

Nitrogen Plant Plans To Be Aired

1-13-59
Minot Daily News
RIVERDALE — Plans for the construction and operation of a \$15 million plant here to produce agricultural chemicals will be outlined at a meeting of the Riverdale chapter of the Society of American Military Engineers on the evening of Jan. 22.

Making the presentation will be Harry Dennis, vice president in charge of engineering of the Chemical and Industrial Corp. of Cincinnati, O., a firm which has taken the leadership in building similar plants around the world and is serving in a consulting engineering capacity for North Dakota Nitrogen, Inc. which will build and operate the Riverdale plant.

The Cincinnati firm has received a report termed "very satisfactory" on tests made at a similar plant in Germany on 10 tons of lignite shipped there last fall from Riverdale. The German plant consumes soft coal, but the lignite reportedly worked very well under actual production conditions.

Current plans call for a start of construction in the spring. The Corps of Engineers already has approved sale of the 2½ million ton lignite stockpile at Riverdale to the North Dakota firm at 40 cents a ton.

\$584,620 Low Bid On Ft. Peck Transformers

1-16-59
Minot Daily News
RIVERDALE — The American Elin Corp. of New York City submitted the lowest of eight bids for the contract of furnishing four power transformers for the second power plant at Fort Peck Dam at a bid opening in the Garrison

For the investigation program in the states of North Dakota, South Dakota, Colorado, Kansas, Montana, Nebraska and Wyoming, the President has recommended an appropriation of \$2 million.

Based on that premise, the Bureau has charted a planning program on the Diversion project for the next fiscal year which calls for:

1. Completing the detailed work on the Oakes unit. (That work will be virtually finished by the end of the current fiscal year.)

2. Continuation of detailed planning on the LaMoore and Warwick-McVillie units. (In the next year the Warwick-McVillie unit should be brought to a point of near completion and the LaMoore unit will be "well along" toward completion.)

3. A start on the Karlsruhe and Souris Loop districts. The Karlsruhe district is a 2-year job and the Souris Loop a 3-year job, again based on the current rate of progress.

No work will be undertaken in areas where irrigation districts have not yet been formed, Bruce Johnson, projects chief for the Bureau in North Dakota, said. As the districts are organized, however, they will be in line for the

Aandahl Answers Davis Protest on Missouri Power

WASHINGTON, D. C. — Fred G. Aandahl, assistant secretary of the Interior, said Friday allocation of Missouri Basin public power will be handled on an equal basis to all customers without regard to state boundaries.

Gov. John E. Davis of North Dakota had protested against the present system of allocation of power from the big dams in the Missouri River basin. He said North Dakota was being slighted.

Purchased For Children's Camp

RIVERDALE — A dormitory for workmen employed on Garrison Dam construction has been purchased by Camp Dominic Savio, a non-profit corporation organized a year ago to establish a children's camp in the state.

The dormitory will be moved to a permanent site at Pick City, three miles west of here, next spring.

The camp is expected to be in full operation for 100 campers by mid-summer, according to Rev. Laurence R. Talty, pastor of St. Anthony's Catholic Church at Donnybrook and director of the camp.

The dormitory was constructed in 1946 by the federal government at a cost of \$179,000. It was purchased for \$7,500, although remodeling and other necessary work will bring the cost to about \$35,000.

three schedules, A, B and C. The American Electric bid was: Schedule A, \$266,700; B, \$142,545; and C, \$175,375; for a total of \$584,620. The second low bidder on schedules A and B was the English Electric Export and Trading Co. of New York City with bids of \$274,000 on schedule A, and \$169,000 on schedule B. The second low bidder on schedule C was the Legnano Electric Corp. of New York with a bid of \$220,735.

The deadline for delivery of the transformers is July 1, 1950. Other bidders were the Wagner Electric Corp. of St. Louis; the Allis-Chalmers Manufacturing Co. of Milwaukee; General Electric Co. of Bismarck, N. D.; Pennsylvania Transformer division of the McGraw-Edison Co. of Canonsburg, Pa.; and the Westinghouse Electric Corp. of Fergus Falls, Minn.

Requests \$143 Million For River Basin 1-20-59

WASHINGTON (UPI) — President Eisenhower Monday asked Congress to appropriate \$143,369,894 for construction of reclamation, navigation, and flood control projects in the Missouri River Basin during fiscal 1960.

The President's budget included \$105,380,000 for the civil works program of the Army Corps of Engineers, and \$37,989,894 for the Bureau of Reclamation. No new construction was scheduled. The requested funds would be used for construction of existing projects and for investigation of proposed projects.

The largest single request was \$43.5 million for work on the Oahe reservoir in South Dakota by the Army engineers. The largest request for reclamation construction was \$4,076,035 for the Frenchman-Cambridge division of the Missouri River Basin project in Nebraska. Projects to be affected are the Red Willow dam and reservoir, Culbertson canal, and Frenchman Creek floodway channelization.

The Army Engineers' proposed projects were part of a nationwide civil works program estimated to cost \$864,848,000.

Reclamation requests included \$19,836,894 for major construction on eight projects, \$15,508,000 for construction of transmission systems, \$645,000 for a drainage and minor construction program, and \$2,000,000 for investigation of proposed projects.

One of three major reclamation construction requests submitted by the President included \$2,118,000 for the Glendo Unit in Wyoming.

Transmission work also would be done on Flatiron-Greeley transmission line in Colorado, on metering stations of the Nebraska portion of Kortes-Cheyenne-Pine Bluff-Sidney transmission line,

Ft. Peck in Transformer Bids Opened

By Tribune Correspondent

RIVERDALE, N.D.—The American Elgin Corp. of New York City submitted the lowest of eight bids for the contract of furnishing four power transformers for the second power plant at Fort Peck Dam at a bid opening in the Garrison District office of the Corps of Engineers here.

The job was offered in three schedules, A, B and C. The American Elgin bid was as follows: Schedule A, \$266,700; B, \$142,545; and C, \$175,375, for a total of \$584,620. The second low bidder on schedule A and B was the English Electric Export and Trading Co. of New York City with bids of \$274,000 on schedule A, and \$169,000 on schedule B. The second low bidder on schedule C was the Legnano Electric Corp. of New York with a bid of \$220,735. The deadline for delivery of the transformers is July 1, 1960.

Other bidders were the Wagner Electric Corp. of St. Louis; the Allis-Chalmers Manufacturing Co. of Milwaukee; General Electric Co. of Bismarck, N.D.; Pennsylvania Transformer Division of the McGraw-Edison Co. of Canonsburg, Pa., and the Westinghouse Electric Corp. of Fergus Falls, Minn.

Illinois Firm Low Bidder On Dam Equipment

RIVERDALE (AP). — The Woodward Governor Co., Rockford, Ill., was apparent low bidder for furnishing turbine governors for the second power plant at Fort Peck Dam in Montana, the Army Engi-

Great Falls Tribune Missouri Basin Water Program Is Only Half Completed 1-19-59

In his review of the Bureau of Reclamation's water and irrigation development program in 1958, H. E. Aldrich, director of Upper Missouri River Projects, states that this year, as in the previous year, construction of the Helena Valley unit, started in 1936, continued as the bureau's major construction activity in Montana.

An interesting and significant background picture of the Missouri River basin development program is presented in a pamphlet prepared by the Missouri Basin Interagency Committee and recently published by the U.S. Public Health Service.

In its introductory, this report recalls the disastrous '30s of drought, flood and depression years when thousands of families abandoned their homes in the face of dust storms and falling water tables. Others who stayed required public assistance. From 1930 to 1940 more than \$2½ billion were poured into the area.

Then came World War II, another emergency demanding allout production.

In 1944 the federal government adopted a comprehensive program for basin-wide water development and flood control. This program sought to bring government bureaus, formerly working alone, into a co-operative team to solve the complex and varied problems of conservation in the Missouri basin.

Though the program has often been subject to criticism, few in Montana would deny that its achievements have been tremendous and far-reaching. Yet the pamphlet's review of accomplishments and of the task ahead indicates that we have advanced little beyond the half-way mark in the basin's water conservation and flood control program.

According to this survey, water is still to be harnessed for irrigating 4 million acres of land, creating 100,000 new job incomes, based on a \$250 million annual output of food and fiber, and establishment of a \$½ billion annual market for manufactured goods—in time creating many new communities and livelihood for 2 million people.

er plant in Wyoming.

was \$85,830. Alms-Chaimers Co., Minneapolis, entered a bid of \$111,870 and the Pelton division of Baldwin-Lima-Hamilton Corp., San Francisco, bid \$101,300.

plished by a series of starts and stops. It needs to be continuous.

Glendive Levees Up for Bidding

Great Falls Tribune
RIVERDALE, N.D. (UPI)—Bids for the contract to construct local flood protection levees on the Yellowstone River at Glendive will be invited in mid-February, the Corps of Engineers said.

The Glendive project will involve placing about 200,000 cubic yards of dike embankment and rebuilding a bridge. The estimated cost is \$150,000, the Garrison district office said. Bids will be opened March 18.

FORT PECK RESERVOIR (Data from the Corps of Engineers)

Reservoir elevation at midnight, Jan. 20, was 2196.21, with a gross storage of 8,940,290 acre feet. The average inflow during the week was 5,900 second feet, and average release was 6,975 second feet. Reservoir elevation at midnight, Jan. 26, was 2196.11, with a gross storage of 8,925,390 acre feet.

1-29-59
THE GLASGOW COURIER

Feb. Opening For Roofing At Fort Peck

Garrison district of the Corps of Engineers has set Feb. 6 at 2 p.m. for a bid opening in its Riverdale, N. D., office for roofing materials to be used at Fort Peck.

An invitation for bid lists 875 sheets of corrugated roofing in 12-foot lengths and 140 sheets of the roofing in seven-foot lengths.

In addition, bid is asked on a total of 51 ridge roll, end wall and side wall flashings.

Just Musing....

Washburn (ND) Leader 2-5-59
By Oliver Borlaug

Recently it was announced that Col. Pine's assignment at Riverdale would be terminated in the spring and he would eventually be assigned to South America. We express a thought which is shared by many... we have lost a fine officer. Mrs. Pine leave McLean county.

In the time Col. Pine has been District Engineer at Riverdale, we feel that there has been developed a closer, closer bond between the people of the county and the Corps of Engineers.

There have been many meetings at Riverdale to which business and civic leaders of the municipalities of the county have been invited. In increasing numbers our people have accepted these invitations — particularly at the meetings of the Society of American Military Engineers, indicating that our people are interested in the "workings" of the Corps.

We feel that this feeling of friendship between the representatives of the government and the people of McLean county will continue... the seed has been sown and has taken root.

The Washburn Leader

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THURSDAY, FEB. 5, 1959

NATIONAL AWARD WINNER

1958 FEB 5 1959

National Editorial Association Annual
Better Newspaper Contest

State Leaders Gather to Hear Talk By Dennis



Riverdale — Pictured is a group of state leaders present in Riverdale to hear an outline of plans for the multi-million-dollar agricultural chemical plant proposed for the area just below Garrison Dam. The speaker was Harry Dennis, engineering vice president of the Chemical and Industrial Corp., of Cincinnati, Ohio. The latter firm has been retained as a consultant by the North Dakota Nitrogen Corporation, which will build and operate the plant. Dennis, speaking before the Riverdale Post of the Society of American Military Engineers, said construction was scheduled to start this coming spring. In the photo, left to right: Erik C. Erikson, president of the Riverdale SAME post; Ray Dobson, publisher of the Minot Daily News; Harry Dennis of C. & I.; John O. Hjelle, editor of the Bismarck Tribune; Frank Wenstrom, Williston banker and state senator; Homer Ludwick, executive vice president of the GNDA, Fargo; and Col. Lynn W. Pine, Garrison District Engineer for the Corps of Engineers.

Diversion Project Wins Mississippi Valley OK

Williston Herald 2-4-59

ST. LOUIS (AP) — A resolution endorsing the Garrison Diversion project was adopted at the close of the annual meeting of the Mississippi Valley Assn. here Tuesday afternoon.

The resolution called upon Congress to "enact appropriate legislation to construct the Garrison diversion project". If Congress finds the project "sound and economically justifiable after provision is made in the plan for the return of substantially all of the return flows from lands irrigated into the Missouri River."

It also noted that irrigation in the upper basin was one of the principal benefits of the basin program envisioned in the pickloan plan of 1944.

A North Dakota delegation at-

tending the meeting expressed "great satisfaction" with the action of the powerful organization representing 23 states in the Mississippi Basin.

Fred J. Fredrickson, Washington representative of the North Dakota Water Conservation Commission, said the action was "evidence of improved relations" between upper and lower basin interests and "should be of great help in getting the proposed reauthorization legislation through congress."

At the meeting R. L. Bessel of Harvey, N.D. was reelected director from North Dakota and Donald O'Toole, Chicago banker, was named president, succeeding Charles I. Danforth of Yankton, S.D.

Aim: United Front on Diversion

Basin Power Fargo Forum Hearings Set

WASHINGTON (AP) — Chairman James E. Murray (D-Mont) of the Senate Interior Committee Tuesday scheduled hearings on federal power generation and marketing. He said the emphasis would be on the Missouri River basin.

The hearings, set for Feb. 13-14, will give rural electric cooperatives, city power systems and others a chance to testify on power needs.

A second hearing will be held March 5 on the Interior Department's power allocations for the Missouri basin, and to consider a prospective shortage of electric power in the area.

The committee will study possible methods of meeting the power generation needs of the Missouri Basin and other areas. Both hearings will be in Washington.

Tentative Accord Is Reached On State Water Users Group

Preliminary approval of articles and by-laws for a new North Dakota Water Users Assn. was given here Saturday by a joint committee representing the two groups which would get together to form the new association.

The committee represented the North Dakota Reclamation Assn. and the Missouri-Souris Projects Assn., which are talking about dissolving their separate entities and coming together as one group.

State Rep. L. C. Mueller, Oakes, president of the reclamation assn., and R. K. Dushinske, Devils Lake, president of the projects assn., attended the meeting.

The group agreed to a proposal that the memberships of both associations be called to general meetings in Bismarck Feb. 21 for the purpose of dissolving their organizations, if they agree to the plan, so that the two groups can then meet as one to set up the new association.

Consolidation of the two groups has been urged as important in order that North Dakota water reclamationists may present a united front in efforts to secure federal approval of the Garrison diversion plan and other projects in the next several months.

The proposed North Dakota Water Users Assn. would be

governed by a board of directors representing four districts — four each from the southwest, northwest, southeast and northeast districts plus five others. These would be the immediate past presidents of the association, the state director of the national reclamation association, and three appointed by the board at large.

The joint committee adopted a resolution urging that the new organization's board of directors, when elected, promptly set up a Garrison Diversion Committee to coordinate promotional work on that project. Other committees would be appointed for other projects as needed.

Editorials

Bismarck (ND) Tribune. 5 Feb. 1959

Everywhere Else, Reservoirs

A representative of the Army's Corps of Engineers said in Bismarck the other day that the Corps has no present intentions of investigating the possibility of building another large dam in the Bismarck-Mandan vicinity.

This was good news to the people of this area who can't get over the fear that some day the federal government will come in and build another big dam and when it does, the few remaining acres of Missouri bottom land that remain in the state.

The man who made this statement was R. J. Pafford of the Omaha Division office, and undoubtedly Mr. Pafford meant what he said, even when he stressed that no such study would be undertaken until and unless North Dakotans through their governor asked for it.

Unfortunately, a big wheel in a division office is just a small cog in the total governmental machine, and rarely does one functionary know what all other functionaries are thinking or even what they're doing.

About the same time Mr. Pafford was in Bismarck, the chief of engineers, Maj. Gen. E. C. Itschner, was making a speech to the Mississippi Valley Association in St. Louis, and what he said may be of more than casual interest.

Itschner declared that "much more emphasis will have to be placed on the construction of reservoirs for the conservation of water than in the past" and added

poundments are already being lost at an alarming rate, as the country grows and people build improvements where we MUST store water to assure our continued growth. . . . In the Missouri basin construction of four authorized reservoirs and one considered for possible authorization may be provided because of encroachment. In general, good sites for build another big dam and when it does, the few remaining acres of Missouri bottom land that remain in the state.

In other words, new sites for large dams and reservoirs are needed, and it isn't going to be easy to find them.

It would be surprising if General Itschner's scouts haven't had an eye on the stretch of the Missouri north of Bismarck and south of Garrison Dam.

This 75 mile length of virgin bottomlands is almost the only sizeable strip remaining between the Nebraska border and the Montana line upon which a "moderately large" reservoir might be located.

North Dakota wants no more of the Missouri River bottoms, which include some of the finest land in the state, used to store water for the production of electricity for export to other states or to float barges on the Missouri below Omaha or for any other purpose.

Editorials

Bismarck Tribune 2-3-59

Two Very Important Firsts

There is good reason now to hope that most of the obstacles have been overcome in efforts to build a plant at Riverdale for the manufacture of agricultural chemicals from North Dakota lignite.

The effects of such a development may be far-reaching beyond the present understanding of most persons.

Ted Kolderie, the very excellent reporter here for the Minneapolis Tribune, noted two basic reasons for the plant's importance in a recent dispatch to the newspaper.

1. It will represent, he said, the first large-scale industrial use of North Dakota's huge reserves of the coal.
2. It will be the first shift of the United States ammonia-producing industry away from natural gas and oil to a new raw material.

It is understood that the availability of the lignite stockpiled in the building of Garrison Dam, at a comparatively low price, is the most important factor in the economic feasibility of such a plant at this time and this place.

However, the first successful industrial use of lignite in this way could well lead to other similar industrial uses. As Kolderie wrote, it is the first important use of lignite for industrial purposes, and once the value of lignite for these purposes has been demonstrated, a whole new field of potentialities is opened.

Bid Opening Set On Levee For Williston

RIVERDALE, N.D. (AP) — A call for bids on construction of the final link in the 10-mile levee system that will protect Williston from the rising water of Garrison Reservoir will be issued Friday by the Army engineers.

The bids will be opened here March 19.

The stage 3 levee job being put up for bids entails about 1 1/2 miles of dike and related construction and is a unit of the Garrison Dam and reservoir project. Stages 1 and 2, comprising approximately eight miles of levees, have been completed in the last two years.

Stage 3, which closes the gap on the Missouri River side of the city, could not be let for construction until the government and the city of Williston reached a settlement over replacement of the city's water intake and other facilities.

Group Of St. Paul Leaders Will Visit Garrison Dam

Riverdale — A group of between 25 and 30 St. Paul, Minn. business, industrial and professional leaders, has founded Garrison Dam as one stop on a North Dakota tour. It is planning for April 5-6, according to a letter received here from the St. Paul Chamber of Commerce. Among the tourists will be William Clapp, president of the St. Paul Chamber; John Budd, president of the Great Northern railroad; Robert S. MacFarlane, president of the Northern Pacific, and Fred M. Swain, petroleum geologist of the University of Minnesota.

Arriving in Minot at 5:30 a. m. Sunday, April 5, via the Great Northern, the party will spend Sunday on a tour of the area.

supply." He went on:
"Good locations for major im-

Mississippi Valley Assn. Backs Diversion Project

A resolution endorsing the Garrison Diversion project was adopted without opposition at the close of the annual meeting of the Mississippi Valley Assn. Tuesday afternoon in St. Louis, Mo.

The resolution called upon Congress to "enact appropriate legislation to construct the Garrison Diversion project" if Congress finds "the project sound and economically justifiable after provision is made in the plan for the return of substantially all of the return flows from lands irrigated into the Missouri river."

It also noted that irrigation in the upper basin was one of the principal benefits of the basin program envisioned in the Pick-Sloan plan of 1944.

A North Dakota delegation attending the meeting expressed "great satisfaction" with the action of the powerful organization representing 23 states in the Mississippi basin.

John J. Fredrickson, Washington representative of the North Dakota Water Conservation Commission, said the action was "evidence of improved relations" between upper and lower basin interests and "should be of great help in getting the proposed reauthorization legislation for the Diversion project through Congress."

Fredrickson also is Washington representative of the Greater North Dakota Assn.

At the meeting R. L. Bessel of Harvey was reelected director from North Dakota and Donald O'Toole, Chicago banker, was named president, succeeding Charles T. Danforth of Yankton, S.D.

The resolution, originally drawn by a special committee appointed by Danforth, was approved by the Platform and Resolutions committees before it was brought to the floor and adopted as part of the platform of the MVA.

and the Williston City Commission. The government specifies that the stage 3 levee unit be completed by the end of November, 1960.

According to the letter, Thomas C. Fitzmaurice, Minot oil man, is making the arrangements and will conduct the tour Sunday evening a joint meeting. At the country club is planned with the Minot Chamber of Commerce. The speaker will be Mr. SWAN who will describe the Williston Basin oil development.

On April 6 the party will tour the Beaver Lodge oilfield, arriving at Garrison Dam for a tour at about 3 p. m. Following an inspection of the refinery at Mandan, the party will go on to Bismarck that evening for a joint meeting with the Bismarck, Mandan and Garrison chambers of commerce. Sam M. De Johnson, Garrison district executive officer for the Corps of Engineers, has been asked to describe the Garrison project at the Bismarck meeting. Other speakers scheduled are Clapp, Budd, MacFarlane. Wilson, North Dakota state geologist, is billed as the chief speaker. The party will return to St. Paul that night on the Northern Pacific.

N. D. Irrigation Contract Details Worked Out at Washington Meet

Bismarck Tribune 2-11-59

By JACK E. CASE

Tribune Staff Writer
Principles and terms of contracts for irrigation districts in North Dakota's Garrison Division project were developed at a recent tri-level Bureau of Reclamation conference at Washington, D. C. Basic principles arrived at were that North Dakota farmers, the best possible terms for irrigation development possible under present federal water laws.

"The terms recognize that North Dakota has an established dry-land agriculture, and irrigation will not reclaim a desert," summarized Bruce Johnson, Bureau of Reclamation spokesman in North Dakota.

"We have to make it possible for the irrigator to compete with his dry land neighbor or he will move out of the state," Johnson said.

HEART OF THE conference discussion was the part North Dakota's 25-county Garrison Conservancy District shall play in the irrigation development. A means was desired by which the Conservancy District could air irrigation districts and individual irrigators in getting started.

"With the conservancy district participating, the farmers can be aided without relaxing an already liberal federal law," Johnson explained.

Discussion by Bureau representatives on national, regional and district levels led to decisions to accomplish this in three principal areas.

Farmers with irrigable acres who don't want to join an irrigation district may be excluded, and the conservancy district will then pay those acres' share of the cost until they come into the district voluntarily.

The 10-year development period provision will specify that the water bills will be graduated generously with the conservancy district to pay the difference between those bills and the actual cost of

IT WAS PREVIOUSLY determined that the share for farmers, municipalities, park districts and all other users would be 17 per cent of the total cost, with the power paying for the other 83 per cent. Time for repayment could extend for 60 years after the development period.

Specifically under consideration at the conference was the contract for the Dickey-Sargent Irrigation District. It is expected that those that will be offered to other districts will be almost identical.

Although the legal language that

will provide for the general principles is still to be composed, Johnson said it is hoped to have the contracts in the hands of the districts by June 1. They then will have an opportunity to negotiate for changes they may feel are needed to meet local situations.

JOHNSON EXPLAINED that although the contracts legally need be signed only before water is delivered, in actual practice Congress in recent years has not been voting construction money until the contracts have been negotiated with the districts.

Another result of the contract talks, Johnson said, is to place control of the distribution, operation and maintenance in local hands rather than that of government officials. This can be accomplished through the Conservancy district, he said.

Although the discussion was on

Sedimentation Prohibits Any Lowhead Dam

Bismarck Tribune 2-4-59

Heavy, expected sedimentation would make a low-head dam across the Missouri River at Bismarck unfeasible, North Dakota state officials were advised Tuesday by the Army's Corps of Engineers.

Sand carried by the river and deposited in the reservoir that would be created by the dam would probably fill a good portion of it within as little as five years, the engineers explained.

Their preliminary report Tuesday amounted to a preview of the more detailed report that will be made later in the year under a directive from Congress.

Advocates of the lowhead dam idea, who had envisioned the structure as taking the place of a bridge across the river, here to carry Interstate Highway traffic, listened to the discussion and agreed afterward that the idea is all but dead at least for the time being.

THE MEETING was held in the office of Milo Hoisveen, secretary and chief engineer for the State Water Conservation Commission, with Highway Commissioner A. W. Wentz and Chief Highway Engineer R. E. Bradley also present.

Reporting for the Corps of Engineers were R. J. Pafford and A. J. Bartos of the Omaha division office and H. O. Michel and Erick Erickson of the Garrison District Engineers office, Riverdale, which is making the study.

However, the engineers' preliminary estimate as to the cost of a lowhead dam crossing of the river in place of a bridge was

Dam - - -

(Continued from Page 1)
dicted—would kill the proposal," said Hoisveen.

Andrew Mork, rural Mandan, president of the Missouri Slope Development Association, which has urged that such a study be made, urged that other means of controlling bank erosion be explored.

Hoisveen suggested that a series of lowhead dams, between Garrison Dam and the headwaters of Oahe Dam reservoir, just south of Bismarck, might do the job.

He said the water commission would make a study and request that \$15,000 be requested in President Eisenhower's budget to study the lowhead dam idea be earmarked instead to study river bank stabilization. He said such studies might cover a series of low dams as well as revetment and jetties as protective works.

PAFFORD SAID that degradation (lowering of the river bottom through water action) below Garrison Dam has been less than had been anticipated and so there is no present plan for the construction of another dam to control the flow of the river below Garrison. The engineers' spokesmen acknowledged that bank erosion continues to be a problem along the river below Garrison Dam.

Most of the sediment which would settle down in the still waters of the pool above the proposed dam would be deposited in the

pay all operating costs during the development period to meet federal requirements that those benefited must pay operating and maintenance costs during that time.

JOHNSON EXPLAINED that the conservancy district would provide that assistance under the "indirect benefits" principle. This considers benefits from irrigation to others than the actual farmers through increased feed supplies, greater business volumes and similar expansion which results from greater farm production by irrigation.

Actually of course, the farmers will pay only a share of the total cost of diverting water from Garrison Dam and delivering it to the districts, with much of the cost to be carried by sale of power produced by generators at Missouri River dams.

will probably be used in drawing contracts for districts in Texas and other states.

ENGINEERS PLACED this estimate at about \$8,000,000, which figure they said included all roadway and bridgework which would be needed for the interstate highway for a 3,200-foot stretch across the river valley.

A dam alone, carrying no bridge and including no bridge, would probably cost about \$3,000,000. It was estimated.

It was specified that these estimates would be subject to revision if carried out.

Preliminary studies did not show benefits sufficient to justify any substantial investment in a dam, it was reported.

However, it was stressed that the engineers' report was averse recommendation. It was based primarily upon the limited factor, which would condemn the reservoir to an extremely short life expectancy.

EVEN IF NOTHING else were favorable, the fact of itself assuming the filling of the reservoir, and the removal of the river, would take place as pre-

(See DAM, Page 2)

would come from bank erosion and from bottom erosion due to the fast flow of the river below the dam, engineers said. It was suggested that a series of low dams might be a cheaper way to control bank erosion than brush or rock revetments.

HOWEVER, to control sedimentation, it was pointed out, it would be necessary to make the first dam to be built that immediately below Garrison Dam, moving later to construction of as many as three or four others down river dams.

Paiford said that engineers have no intention to make any studies, relative to another dam, on the river. It has some times been suggested for the future mark Indian Agency, until North Dakota people and their governor ask for a study.

Mork said he intends to call a meeting "fairly soon" of the Missouri River Development Association, at which the findings of the study engineers, on the lowhead dam study, will be discussed. "We'll probably decide then what to go from here," he said.

Basin Reservoir Storage, Power Up Over a Year Ago

Bismarck Tribune 2-11-59

OMAHA — A normal pattern of winter operations at the main stem Missouri River reservoirs prevailed during the month of January 1959, the Missouri River Control Center reported Tuesday. The new Oahe Reservoir pool near Pierre, S. D., gained some storage during the 30-day period, but system storage over-all remained substantially unchanged over the previous December report. The increase to a new high elevation at Oahe permitted recapture of high winter power releases from Garrison Reservoir in North Dakota. The excess water over current downstream needs will be used to meet increased lower river requirements in the spring. Total water in storage at midnight Jan. 31 was 21 million acre-feet, approximately 1 million acre-

feet over the total storage on the same date a year ago.

Water releases from Gavins Point Reservoir near Yankton, S. D., lowermost of the main stem chain, were held in the 9,600 to 10,000 cubic foot per second range during January. This conformed to scheduled requirements to sustain adequate winter discharges on the lower Missouri River and to meet winter system power operation needs.

Total power generation at the four operating power plants in January 1959 amounted to 223 million kilowatt-hours, a 15 per cent gain in power production over that in January 1958.

January operations for each of the reservoirs:

Gavins Point—January releases from Gavins Point totaled 625,000 acre-feet, all of which passed through the power turbines. Total energy generated at Gavins Point in January amounted to 24,000,000 kilowatt-hours.

Fort Randall—Fort Randall releases totaled 600,000 acre-feet in January, all of which passed through the power turbines. Power generation at Fort Randall in January totaled 57,000,000 kilowatt-hours.

Garrison — The month's releases of water at Garrison totaled 830,000 acre-feet, all of which was used for power generation. Total generation at Garrison in January was 90,000,000 kilowatt-hours.

Fort Peck — Total power generation at Fort Peck during the month was 52,000,000 kilowatt-hours, with releases amounting to 412,000 acre-feet, all passing through the power turbines.

Records of the Reservoir Control Center show that a total of 223,000,000 kilowatt-hours of electricity was generated at the four main stem plants in January. The peak coincidental power generation was 482,000 kilowatts between 5 and 6 p.m., CST, on Monday, Jan. 5.

Operations in February 1959 will follow the provisions of the 1958-59 annual operating plan agreed upon by the Coordinating Committee on Missouri River Main Stem Operations at its meeting on Sept. 13.

U. S. Senate Unit Holds Hearing on Missouri Power

Bismarck Tribune 2-11-59

WASHINGTON (AP) — The Senate Interior Committee heard testimony Friday from Missouri Basin power customers about allocation problems and pleas for bringing in more power.

Chairman James E. Murray (D-Mont) said tentative allocations indicate there will not be enough

power from Missouri River dams to supply even the preference customers such as cooperatives and municipalities.

Sources of the power are Fort Peck Dam, long in operation but now adding generating facilities, and the new dams and reservoirs—Garrison, Oahe, Fort Randall, Gavins Point and Big Bend.

PRESENT POWER output of 540,000 kilowatts from these dams is already allocated. Another 450,000 kilowatts will be added during the next three or four years as construction work continues and more generating facilities go on the line.

Power experts say the million kilowatts of firm power, or that available at all times, is all that can be depended upon even though there is a potential of about 1,600,000 kilowatts if all generators run at capacity.

'Not Fair Share'

WASHINGTON (AP) — Sen. Mike Mansfield (D-Mont) said Friday that under present allocations upstream states aren't getting a fair share of Missouri River Basin power as Senate hearings opened. "By the winter of 1963," Mansfield said, "there will not be enough power to meet the needs of our preference customers. It is time the upstream states were heard."

There have been suggestions that the million kilowatts of firm power be extended by allocating power

THE COMMITTEE has asked Assistant Secretary of the Interior Fred G. Aandahl, in charge of allocating of power from the Missouri River dams, to testify March 5.

Aandahl in tentative plans has laid down a policy that preference customers throughout the power marketing area of the basin should be treated on an equal footing regardless of geography.

The committee on Saturday expects to hear witnesses from southern Idaho and the upper Colorado area about power marketing problems.

Those scheduled to testify Friday included Kenneth Holm, Aberdeen, S. D., executive director of the Midwest Power Consumers Assn.; Charles Mahoney, Jordan, Mont., for Montana Rural Electric Co-op; Henry Swenson, Columbus, N. D., Upper Missouri Basin Generating and Transmission Co-op; S. A. Forseth, Williston, N. D., Williams County Electric Cooperative Assn.; Virgil Hanlon, Madison, S. D., East River Electric Co-op; William D. Trommerhausen, Aberdeen, Midwest Power Consumers Assn.; Telford Anderson, McKenzie County, N. D., Electric Co-op; Robert St. Cyr, Sidney, Mont., Lower Yellowstone Rural Electric Assn.; Oscar Bergman Jr., for the Valley City, N. D. municipal system; and Joseph Grimes, South Dakota state engineer.

Loveless Asks Flexible Programs for Missouri

Bismarck Tribune 2-17-59

WASHINGTON (AP) — Flexible programs to meet the changing needs of Missouri River Basin communities were urged by Gov. Herschel Loveless of Iowa Monday in an appearance before the Senate Interior and Insular Affairs Committee.

He said his appearance before the committee was based upon a conviction "that these needs must be re-evaluated and that, as governor of one of the most populous states in the basin, I have an obligation to represent those views and needs."

He said it is well established

"MY PRIME re-emphasis then, is upon further development of total resources," Loveless said. The governor told the committee that because of the growing demands for electrical energy and because of the estimated increase in the amount of water resources required for irrigation, sanitation, and municipal use, "the time has now come when we need to re-examine some of the fundamental assumptions underlying the development of the basin."

He said that according to estimates by the Missouri Basin Inter-Agency Committee almost 10 million acre feet of water will be required annually to maintain adequate flow for navigation purposes as measured in Sioux City.

This amount, he said, is in addition to that required for public health and stream sanitation purposes. He said that at the present time the Mississippi River is carrying about 10 times as much tonnage on an annual basis as is the Missouri River.

BUT HE SAID that on the Mississippi River the low water season is based upon weather conditions while on the Missouri, the navigation season is based primarily on releases from the reservoirs located above Sioux City.

10 Leaving Minor Daily News Engineer Staff At Riverdale

RIVERDALE — Ten employees who will be leaving Riverdale within the next month were praised for their "faithful service" to Garrison district in a farewell greeting by Col. Lynn W. Pine, Garrison District Engineer, during the bi-monthly safety meeting held at the Riverdale theater.

Those transferring to other jobs: John Goetz, construction division, Walla Walla, Wash., district; Bill Lebb, engineering, to Walla Walla

Chamber Slates Farewell Dinner For Col. Pine

A farewell dinner honoring Col. Lynn W. Pine, Garrison district engineer of the Corps of Engineers, has been scheduled at Riverside

Colo.; Paul Tobin, operations, Denver; Wallace J. Samuelson, engineering, Denver; Spencer P. Farrington, supply chief, Washington, D.C.; R. G. Barbour, controller, Little Rock, Ark., district; Mrs. Clarine Barbour, librarian, Little Rock; Roy Dory, chief, real estate division, retiring after 32 years of federal service. The Farringtons, Duschas, Barbour and Dorys now have left Riverdale. The others will be going before the end of March.

Mrs. Christine Ware was awarded a commendation by Col. Pine for submitting five suggestions which were approved since January 1956, and Robert Palagi, office service chief, received a letter of commendation for good work during the past year. Joe Griffin was given a \$10 award for a suggestion to improve the service.

be a sufficient quantity of water available so that navigation releases can be started earlier.

He said that as soon as the nine foot channel can be provided between Kansas City and Sioux City cargo tonnage transported on the Missouri will increase tremendously.

HE URGED THE committee to re-examine the possibility of converting the Missouri River to a slack water system of navigation.

He said that if engineering studies should determine that a slack water system is feasible, "I think it is entirely reasonable that the navigation facilities would better serve the purposes of the basin areas."

He said the slack water system of navigation is somewhat more dependable than the free flowing system and probably could be kept open during the longer transport season.

ing February. Releases from the other reservoirs will be geared to power generation requirements, averaging 8,000 to 9,000 c.f.s. at Fort Randall; 10-15,000 c.f.s. at Garrison and 7,000 c.f.s. at Fort Peck. Little change in reservoir levels is anticipated by the end of February except for a moderate rise at Fort Randall.

with outside plants.

THE COMMITTEE likely will hear demands from some groups close to the new big dams in North Dakota and South Dakota that close by customers should be allocated extra amounts of power. These groups contend that large areas in the two states are being flooded by the mammoth reservoirs and customers in the region should have some preference.

A spokesman for the committee said questions also have been raised about the amount of water that is being released during the summer months to aid downstream navigation.

Those opposed to such use of the water point to the O Mahoney-Milwaukee amendment to the 1944 basin authorization act. The amendment says states west of the 98th Meridian should have preference in consumptive use of the water from rivers rising in those states.

Leslie E. Maupin, committee chairman, said invitations to the informal stag affair have been mailed to the Chamber membership.

Giving brief talks at the affair will be W. R. Williams, Chamber president, who will extend well wishes to Col. Pine in his new assignment, and A. R. Weinhandl who will outline the contribution Col. Pine has made to the water development program in North Dakota.

Col. Pine will leave in mid March on a new assignment that will eventually take him to Bolivia. He will take a 6-month course in Spanish at Monterey, Calif., before leaving for South America to take over a U. S. military mission in Bolivia.

Minneapolis Company Low Bidder For Peck Dam Upstream Work

Glasgow Courier 2-12-59

James F. Richard Construction company of Minneapolis was low bidder Tuesday at an opening in Fort Peck for upstream face repairs to Fort Peck dam, it was announced by Maj. M. R. Downes, Fort Peck area engineer.

Announcement of award will be made after evaluation of the bids by Col. Lynn W. Pine, Garrison district engineer, at Riverdale, N. D.

The low bid for the work was \$240,700, and was among four entered.

Other bids and bidders: Joint venture by Gus M. Albert and L. P. Anderson, Miles City, \$246,210; Platte Valley Construction company, Grand Island, Neb. \$330,310, and

Peter Kiewit Sons' company, Billings, \$430,650.

Government estimate for the contract is \$207,350.

The successful bidder will be required to process about 29,000 tons of quarry rock located in a gov-

Launching Ramp And Road Plan At Peck Project

2-12-59

Glasgow Courier

The Corps of Engineers has programmed \$37,865 in continued development of the public use recreation areas above Fort Peck dam during the coming two fiscal years, according to information received from U. S. Sen. James E. Murray of Montana.

Senator Murray provided a copy of a letter received in response to the senator's query to Brig. Gen. J. L. Person, assistant chief of engineers for civil work in the Corps of Engineers.

Items listed by General J. L. Person, dependent upon appropriations by congress, are a mile of access road, estimated at \$13,800; boat launching ramp, \$3,500; a parking area, \$4,365; tree planting, \$6,000, and a portable irrigation system, \$10,000.

A report from the Engineer office at Fort Peck said the work has been programmed for the coming two fiscal years, beginning July 1, with the first year 1960.

The launching ramp would be at the present launching area, while the access road project would provide an all-weather road to the launching site.

The parking area is proposed for the area around the closed shelter building, while the trees are proposed for that same area and for the tent and trailer parking area.

The portable irrigation system would be used at various parts of the recreation area where trees are planted.

ernment stockpile at Fort Peck, then place it as rip-rap on the upstream face of Fort Peck dam. Work will be done in areas not covered by previous contracts of a similar nature.

The contractor will be required to begin work within 15 days after official notice to proceed has been given by the government. Work must be completed on or before May 15, 1960.

Present quarry stone in the stockpile, in pieces weighing from two to 16 tons, will be crushed into smaller pieces by the contractor to fill voids between large rocks now on the upstream face and thus help prevent wave erosion. The crushed rock will vary in size from three to 12 inches.

Army Engineers Plan Conference

2-12-59

Billings Gazette

COLORADO SPRINGS, Colo.

(AP) — Plans for a construction season involving 125 million dollars in design and construction programs for 8 states will be studied at an Army Engineers conference.

The two-day meeting at the Broadmoor Hotel will open Thursday.

From 30 to 40 persons will be present, including area engineers from three Missouri River dams and project construction chiefs for intercontinental ballistic missile bases at Denver, Cheyenne and Omaha.

Gov. McNichols will address the meeting Thursday. Col. D. G. Hammon, Omaha district engineer, will preside at the sessions.

Normal Pattern Of Winter At Missouri Reservoirs Luring

Great Falls Tribune 2-11-59

OMAHA—A normal pattern of winter operations, at the main stem Missouri River reservoirs prevailed during January.

The new Oahe Reservoir pool near Pierre, S.D., gained some storage during the 30-day period, but system storage over-all remained substantially unchanged over the December report. The increase to a new high elevation at Oahe permitted recapture of high winter power releases from Garrison Reservoir in North Dakota.

The excess water over current downstream needs will be used to meet increased lower river requirements in the spring.

Total water in storage at midnight Jan. 31, was 21 million acre-feet, approximately 11 million acre-feet over the total storage on the same date a year ago.

Water releases from Gavins Point Reservoir near Yankton, S.D., lowest of the main stem chain, were held in the 8,000 to 10,000 cubic foot per second range during January. This conformed to scheduled requirements to sustain adequate winter discharges on the lower Missouri River and to meet winter system power operation needs.

Total power generation at the four operating power plants in Jan-

uary 1959 amounted to 223 million kilowatt hours, a 15 per cent gain in power production over that in January 1958.

January operations for each of the reservoirs were as follows:

Gavins Point—January releases totaled 625,000 acre-feet, all of which passed through the power turbines. Total energy generated in January amounted to 24,000,000 kilowatt-hours.

Fort Randall—Releases totaled 600,000 acre-feet in January, all of which passed through the power turbines. Power generation in January totaled 57,000,000 kilowatt-hours.

Garrison—The month's releases of water totaled 880,000 acre-feet, all of which was used for power generation. Total generation in January was 80,000,000 kilowatt-hours.

Fort Peck—Total power generation in the month was 52,000,000 kilowatt-hours, with releases amounting to 470,000 acre-feet, all passing through the power turbines.

Records of Reservoirs Control Center show a total of 229,000,000 kilowatt-hours of electricity was generated at the four main stem plants in January. The peak incidental power generation was 482,000 kilowatts Jan. 30.

Operations in February 1959 will follow the provisions of the 1958-59 Annual Operating Plan agreed upon by the Coordinating Committee on Missouri River Main Stem Reservoir Operations at its meeting Sept. 18, 1958.

Gavins Point releases will be maintained at a general level of 8-10,000 cubic feet per second during February. Releases from the other reservoirs will be geared to power generation requirements, averaging 8,000 to 9,000 cubic feet seconds at Fort Randall; 10-15,000 cubic feet seconds at Garrison and 7,000 cubic feet seconds at Fort Peck. Little change in reservoir levels is anticipated by the end of February except for a moderate rise at Fort Randall.

Better Management of Upper Missouri Sought

Wyoming Eagle, 2-14-59

WASHINGTON —(UPI)—Power and water users from the Upper Missouri River Basin Friday urged Congress to provide better management for the resources of the Missouri River.

Witnesses before the Senate Interior Committee said future planning is hampered by divided responsibilities under the present setup. Many of the witnesses were representatives of rural electric co-ops.

The co-op witnesses complained of inadequate supplies of power allotted to them in the future plans of the Interior Department's Bureau of Reclamation. Several suggested that steam generation of power should be used to

"firm up" additional river hydro power.

Kenneth Holm, executive director of the Midwest Electric Consumers Association—and organization of co-ops and other groups which gets priority of federally produced power—said "wise and proper management of the resources of the basin will make it possible for the Bureau of Reclamation to serve all the requests of the preference customers" for the present without harming irrigation projects.

"Divided responsibility means

no responsibility for planning at all," Holm said. He said the Bureau of Reclamation has the responsibility to supply power, while the Army Engineers determine, in effect, how much power will be produced.

Holm said Congress should authorize studies of "slack water" navigation for the Valley—a point also stressed in a statement placed in the committee record on behalf of South Dakota Gov. Ralph Herseth.

J. W. Grimes, chief engineer for the South Dakota Water Resources Commission, told the committee that "present Missouri River operating problems are created by trying to do too much with too little . . . commitments for water service are beyond the ability of the water supplies to furnish."

Senators Hear Pleas For Basin Power

Can't Meet All Demands, Says Solon

2-13-59

Williston Herald

WASHINGTON, AP — The Senate Interior Committee hears testimony today from Missouri Basin power customers about allocation problems and pleas for bringing in more power.

Several men from Williston, N. Dak. area are scheduled to testify. They include S. A. Forseth, of Williston; Williams Co. Electric Cooperative Assn.; Henry Swenson, Columbus, N. D., Upper Missouri Basin Generation and Transmission Co-op; Telford Anderson, of McKenzie Co., North Dakota Electric Co-op, and Robert St. Cry of Sidney, Mont., Lower Yellowstone Rural Electric Assn.

Sources of the power are Fort Peck, in operation but now adding generating facilities; and several dams and reservoirs, including Oahe, Fort Randall, Gavins Point and Big Bend.

Present power output of 540,000 kilowatts from these dams is already allocated.

Another 450,000 kilowatts will be added during the next three or four years as construction work continues and more generating facilities go on the line.

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There have been suggestions that the million kilowatts of firm

The amendment says states west of the 98th meridian should have preference in consumptive use of the water from rivers rising in those states.

The committee has asked assistant secretary of the interior Fred G. Aandahl, in charge of allocating of power from the Missouri River dams, to testify Mar. 5th.

Aandahl in tentative plans has laid down a policy that prefer-power marketing area of the basin should be treated on an equal footing regardless of geography.

The committee on Saturday expects to hear witnesses from southern Idaho and the upper Colorado area about power marketing problems.

Others scheduled to testify today include Kenneth Holum, Aberdeen, S.D., executive director of the Midwest Power Consumers Assn.; Charles Mahone, Jordan, Mont., for Montana Rural Electric Coop; Virgil Hannon, Madison, S.D., East River Electric Coop; William T. Trommerhausen, Aberdeen, Midwest Power Consumers Assn.; Oscar Bergman, Jr., for the Valley City, N.D. Municipal system; and Joseph Grimes, South Dakota state engineer.

Executive Officer Slated at Riverdale

RIVERDALE — The new executive officer of Garrison District is scheduled to be Capt. Howard L. Strohecker, Col. Lynn W. Pine, Garrison district engineer, has been advised by the department of the army. Capt. Strohecker is due to arrive at Riverdale late in August. He will succeed Capt. Malcolm D. Johnson, who this year is completing a two-year tour of duty at Riverdale. Captain Strohecker is a graduate of the U.S. Military Academy at West Point and Engineer Officers' Advanced Course, and holds degrees in military and civil engineering.

Minot (N.D.) Daily News
13 February 1959

No Easy Way

'Middle Ground' Answer For Education, Col. Pine Feels

RIVERDALE — A correlation between this country's national security and its educational program was brought out candidly Thursday night by Col. Lynn W. Pine, Garrison district engineer for the Army Corps of Engineers, at a meeting of the Riverdale Parent-Teacher Assn.

"The overriding lessons we learned this past year of self-analysis and debate are that national security and education are tied up in one tight package," Col. Pine told his PTA audience.

"One cannot succeed without the other."

The fate of the nation and the free world rests largely on how well or how poorly we in America conduct our education and religious processes in the coming years, he said.

However, Col. Pine emphasized, the big question is, "can we or dare we continue the 'hoop-skirt' theory of education — covering everything and yet touching nothing. Or must it be abandoned and the curricula beefed up by emphasis on mathematics, science and other studies that tax

the mentality? Should we take these and other measures to prevent wastage of the God-given talent which the nation and free world need so badly at this time?"

"I'm convinced we will and must strike upon a solution in the happy 'middle ground' that will serve both our national security and internal advancement economically and culturally," Col. Pine said. "But we can't accomplish this by just following the line of least resistance."

He described individuals who decry the growing expenditures for education as persons who "would frighten us with the bogeyman of national bankruptcy."

When this country learned of the scientific achievement of the Russians through the launching of Sputniks and ICBMs, the immediate reaction was to believe, correctly or not, that Russia had gained an advantage not only in science but in all the educational field, Col. Pine said.

"We felt like a football team whose quarterback had been caught flatfooted in the backfield by opposition linemen and thrown for a tremendous loss."

"Because the Reds reveal only what propaganda will serve them best, it is difficult even now to evaluate where the two countries stand in comparative educational programs, he said."

"One thing, certain, the pressure is still on despite our determination not to be satisfied with coming out second best," he declared.

Pointing to records that show the Russians are graduating many more students than the U.S. in the physical sciences, mathematics and engineering, Col. Pine said, "I'm not saying we should match their figure, but we can't ignore it."

Col. Pine said he believed the U.S. may have to divert a large portion of its output to national security, as well as to education.



Bismarck Tribune 2-13-59

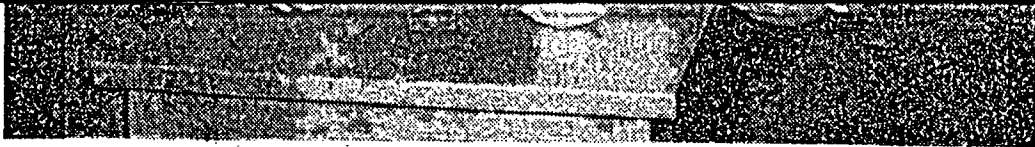
for steam power or exchange agreements with outside plants.

The committee likely will hear demands from some groups close to the new big dams in North and South Dakota that closeby customers should be allocated extra amounts of power.

These groups contend that large areas in the two states are being flooded by the mammoth reservoirs and customers in the region should have some preference.

A spokesman for the committee said questions also have been raised about the amount of water that is being released during the summer months to aid downstream navigation.

Those opposed to such use of the water point to the O'Mahoney Millikin amendment to the 1944 basin authorization act.



VIEWS PLANT SITE — The newly-appointed president of North Dakota Nitrogen Co., George C. Van Nostrand of New York City, came to Riverdale this week to take his first look at the site of the new \$15,000,000 agricultural chemical plant his company proposes to build below Garrison Dam. Van Nostrand is pictured at right. Pictured with him, left to right around table, are Col. Lynn W. Pine, Garrison District engineer; Harry W. Dennis, vice president of Chemical and Industrial Corp., Cincinnati, Ohio; Les Munson, office manager for North Dakota Nitrogen at Bismarck; and Cecil Lashley, chemical engineer for C & I. Negotiations for the government's lignite stockpile and other Riverdale facilities are proceeding satisfactorily, the officials reported. It is expected that construction of the plant will begin in the spring. Van Nostrand and his family will reside in Bismarck.

... decisive in the determination of the size of defense budget representing 10 to 15 per cent of the gross national product, or even more. . . . Certainly imposition of arbitrary cuts in expenditures followed by crash programs is not conducive to improvement of military management and may work to the detriment of programs vital to the welfare of the people—education, for one thing."

It is up to the people of this country to find a solution to the problem, he said.

"Really," Col. Pine said, "it's not nearly as important that we live comfortably and efficiently as it is that we learn to live together, for we must live together if we are to live."

Irrigation Said to Need Backlog

The major immediate problem in bringing irrigation to North Dakota is to get the approval of Congress of the Garrison Diversion Unit and the money to start its construction. Mark Andrews of Mapleton, N. D., said here Wednesday.

Andrews, president of the North Dakota Crop Improvement Assn., spoke at the winter meeting of the Northwest Farm Managers Assn. Andrews is also a member of the Garrison Conservancy District's board of directors, representing Cass County.

North Dakotans have indicated that they are ready to accept their responsibilities in connection with the Garrison Diversion Project and want its early development, Andrews said.

"We have an additional job to do if we are to realize this vast development in our state—that of convincing other states and the Congress of the United States of our need and desires," he said. "Some progress has been made in this direction.

"Much remains to be done if all interests in water use throughout the United States are going to join hands in working toward the full development of this essential resource for the benefit of the entire nation."

Andrews noted that North Dakota's economy is based almost entirely on its agricultural production, principally dryland.

He said irrigation development in central and eastern North Dakota of over one million acres of land which will be integrated with an additional three to four million acres of dryland farming will materially increase and stabilize the production from these acres.

It will permit the farmers of this area to divert approximately 500,000 acres now devoted to the production of surplus wheat to the production of feed and vegetable crops.

He said the Garrison Diversion Unit is expected to provide a basis for an additional 3,400 new farms in the project area. There now

Townsend Ice Prob. Planned By Engineers.

HELENA, Aug. 2.—Hugh K. Potter, state director of civil defense, has been informed by Mike Mansfield that the department of army engineers has instructed the district engineer at Garrison to make a detailed investigation on ice gorges and winter flooding of the Missouri River in Townsend.

In a letter received by Mansfield, the chief of engineers said the bureau of reclamation report on flooding in Townsend, recognizes the situation but there appear to be no direct relationships between such flooding and the bureau of reclamation's Canyon Ferry dam.

The letter continues, "It appears that responsibility for further investigation and the construction of any remedial works which may be found economically justified rests with the corps of engineers."

According to public law 635, authority is available to the chief of engineers to investigate and construct small complete flood control projects provided the federal cost for each project is limited to not more than \$400,000.

"Lands near the highway and railroad bridges in Townsend are flooded in winter months," Potter explained, "when ice forms on the Missouri River."

Colonel Pine Will Talk To Engineer Society

Glasgow Courier 2-19-59
Col. Lynn W. Pine, leaving soon for a new assignment following three years service as the Garrison district engineer for the U. S. Army Corps of Engineers, will speak on "Education and the National Defense" at the monthly meeting of the Upper Missouri post, Society of American Military Engineers, next Wednesday night in the Glasgow Elks club. His talk will be preceded by dinner and a social hour beginning at 6:30.

This will be Colonel Pine's last visit to this vicinity before departing for the Army language school and then to LaPaz to become chief of the United States Military Mission to Bolivia.

Friends of Colonel Pine and those interested in the society, who are not members, are welcome at this meeting," said the program chairman, George Price. Reservations may be made with him at Fort Peck before noon Tuesday.

Colonel Pine has been Garrison district engineer, with headquarters at Riverdale, N. D., since April 1, 1956. He came to North Dakota from a post as troop commander at Kaiserslautern, Germany.

He has been in the Army about 18 years, holding commissions from captain to colonel. Besides his service in western Germany, he has fulfilled assignments in Japan, the Panama Canal zone, Turkey and France, with tours of duty also at the Pentagon, Washington, D. C., and the Command and Staff school, Fort Leavenworth, Kan. Before he entered military service, Colonel Pine held several civilian positions with the Corps of Engineers.

Shortly after he arrived at Riverdale, the Fort Peck and Garrison districts were consolidated, which gave the Garrison district jurisdiction over the Corps of Engineers civil works in Montana east of the continental divide, western North Dakota and northern Wyoming.

Colonel Pine is a native of Illinois and a 1930 graduate of the University of Illinois with a degree in civil engineering. He has been active in the affairs of the Society of American Military Engineers in both North Dakota and Montana. It was largely through his efforts that the first North Dakota post at Riverdale was established and he assisted materially in the formation of those at Minot and Bismarck, N. D., and Fort Peck.

Industrial Need Told To MBIAC

KANSAS CITY (M) — James D. Idol, director of the Missouri Division of Resources and Development, Wednesday called for more attention to industry and recreation in planning and operating the Missouri River Basin.

In an address prepared for the Missouri River Basin Inter-Agency Committee, Idol said "big industrial water users are disturbed by control practices or regulations that cause or can cause stream flow fluctuations of large variance."

Mineral discoveries and new industries should be seriously considered, along with flood control and navigation, in all future discussion and planning, he said.

Joseph Jaeger Jr., director of the Missouri State Park Board, also spoke before the committee, which represents the Missouri Basin states of Missouri, Kansas, North Dakota and South Dakota, Montana, Nebraska and Iowa, and is operating federal agencies.

Sheridan Proposes Plan To Engineers

Sheridan is investigating the possibility of a combined drop structure and Lewis street bridge under the local flood control project, City Manager Maurice E. Cole said today.

Col. Lynn Pine of the Army engineers, Garrison district, has been contacted by letter, and copies sent to Wyoming's Congressional delegation, Cole said.

Sen. O'Mahoney and Sen. McGee have written stating they are asking for a report from Pine. Cole said the Army engineers have previously rejected the idea because of lack of clearance for the bridge. But he added, the city feels some additional clearance can be provided.

Lewistown Firm Low Bidder For Peck Paint Job

Glasgow Courier 2-19-59

Gil's Paint Shop of Lewistown was low among 11 bidders for painting the Fort Peck hotel interior when proposals were opened at the Fort Peck area office of the Corps of Engineers Tuesday afternoon. The low figure was \$2,250.

Maj. M. R. Downes, area engineer, said that after the opening, all bids were sent to the Corps' Garrison district office in Riverdale, N. D., for evaluation.

The government estimate on the project was \$3,627.18.

Other bidders and bids:

Allied Painting and Decorating company, Tacoma, Wn., \$4,487; Dickerson Paint shop, Stevensville, \$3,190; Olson Paint and Glass company, Havre, \$4,220.97; Rodgers & Halverson Decorators, Sidney, \$3,100; A. Shelgren & Son, Inc., St. Paul, \$4,995; Towner Lumber company, Towner, N. D., \$2,465; Lyle O. Hammatt, Great Falls, \$4,989; Grover Augustine, Williston, N. D., \$2,857; Teri Len Paint company, Glas-

gow, \$4,943.75, and Berg Decorating company, Miles City, \$2,744.

Glasgow, Courier

2-26-59

Colonel Pine Makes Farewell Talk At Meeting Of Engineers Society

"The fate of our nation and the free world rests largely on how well or how poorly we in America conduct our educational and religious processes in the coming years."

This was the declaration of Col. Lynn W. Pine of Riverdale, N. D., Garrison district engineer, Corps of Engineers, at a dinner meeting of the Upper Missouri post of the Society of the American Military Engineers in the Elks club here Wednesday night.

It was in the nature of a farewell address for Colonel Pine, who is scheduled soon to end his tour of duty in the Garrison district. After studies at the Army Foreign Language school, he will go to LaPaz, Bolivia, as American military attaché.

Colonel Pine said in part:

"Exactly how we're doing at this moment in comparison with our cold war enemy isn't entirely clear because the Reds reveal only what will serve them best as propaganda. One thing certain, the pressure is still on despite our determination not to be satisfied with coming out second best," Colonel Pine said.

"The overriding lessons we learned this past year of self-analysis and debate are that national security and education are tied up in one tight package. One cannot succeed without the other; that adequate national defense and education of our youth cannot be found in the bargain basement; that basic reforms are indicated if American education is to meet the demands of the present and future; that the much derided egghead is a pretty good guy after all; that a split-T coach can get us the Rose Bowl, but

only the eggheads can get us to the moon.

"The big question is, can we, or dare we, to continue the 'hoopskirt' theory of education—covering everything yet touching nothing. Or must it be abandoned and the curricula beefed up by emphasis on mathematics, science and other studies that tax the mentality?"

"The critics maintain that the luxury of 'permissiveness' in so-called progressive educational practices is something the nation can no longer afford. They maintain that the security of our country and the population must be the overriding consideration—that discipline and the proper channeling of the students' efforts must be the educational watchwords of the times. With that I think we're all inclined to agree, within certain limits.

"On the other hand, there is a school of thought that counsels caution in the matter of going overboard on science, mathematics and engineering. They point out that in a dictatorship such as Russia, educational results can be gained by government edict and subsidy, but in the process cultural and religious development go to the boards. This school contends that if we ape Russia in her regimentation of youth we would fail miserably in the development of the whole man and our democratic concepts would go out the window. I'm convinced we will and must strike upon a solution in the happy middle ground that will serve both our national security and internal advancement economically and culturally.

"One of our problems is the low salaries paid teachers. Few challenge the assertion that we must

pay them more to attract the cream of the talent. We must improve curricula, provide scholarships to apt students, expand our school plants from bottom to top, and make a federal project out of parts of the job.

"Another educator of wide experience told me a recent state education convention that the people of the United States must inaugurate a wide system of free adult education; that we don't have time and cannot wait for future citizens to bring peace and a better world. Unless we know how to deal with today's problems today, he said, there may be no future for our young people.

"To the advocates of these widespread outlays for education and national defense many glibly answer, 'What are you going to use for money? Where is it to come from?' People who so answer would frighten us with the bogeyman of national bankruptcy. They say, 'We can't eat our cake and have it, too' or, it has to be guns or butter, but not both."

"While there's some truth in what they say, the picture by no means is that black, or that simple. Eminent economists point out that it is quite possible to have both internal improvement and adequate defense as long as our gross national product increases at an annual rate of some five percent or more. Their figures are just as convincing as those of the calamity-howlers. After all, our gross national product for just one year far exceeds our national debt. Our indebtedness, when viewed in relation to gross national product, does not appear too formidable.

"With only six percent of the world's population, we own 50 percent of the world's wealth. We own 29 percent of the world's railroad mileage; 71 percent of its automobiles; 52 percent of its radios. We produce more food than we can eat. How could we think of calling quits and resigning ourselves to fate!

"One of the things we're up against is the fact that Russia gets more military worth than the

certainly can't depend on such good fortune. To count on them would be foolish and probably disastrous.

"We need a government which is determined and imaginative in leadership and efficient in administration. But the strength of the United States rests overwhelmingly in the public and its resources.

"Fear that a high defense burden will weaken the economy has been exaggerated and should not be decisive in the determination of the size of a defense budget representing 10 to 15 percent of the gross national product or, even more. There is no factual basis for the notion that we are within reach of or exceeding some breaking point beyond which tax-financed expenditures will impair critically economic growth.

"We must strive to maximize the amount of security that each defense dollar will buy. Certainly imposition of arbitrary cuts in expenditures followed by crash programs are not conducive to improvement of military management and may work to the detriment of programs vital to the welfare of the people—education, for one thing.

"We can thank heaven for the nuclear stalemate which is buying us precious time today. In this time we must keep strong and still strive for far-reaching international guarantees that can result in gradual disarmament. As time goes by we must grasp at every means available that will work toward the creation of international confidence. It may be that one short step can be taken at a time. This may take years, but most any measures short of suicide are preferable to setting the world on fire by nuclear war.

"In the last year we have been somewhat shockingly brought to the realization that 'pioneering' is not over; that we now are faced with the exploration of infinity. The great mysteries of the Milky Way, the planets, the Moon—so long surrounded by the supernatural, will rapidly become everyday and prosaic.

"Only time will tell what we as a world society are going to do with the opportunities before us. It is reasonable to presume that the constructive efforts of men of good will will gradually lead men and

less, per many on pay, sustenance, comfort and safety of military personnel. At the expense of consumer goods industries, she employs her most productive resources in her defense industries—the best workers, managers and scientists and the best equipped factories. Second, her entire economy is oriented toward supporting defense and economic growth and not toward satisfying consumer wants.

"And dwelling for a moment on the other arm of Soviet preference for education, the record shows that in 1951 we had about 100,000 more students in the physical sciences, mathematics and engineering than the USSR. In 1955 the Soviet number was twice the American number. In 1960 we should match them in life but we can't ignore a third of the world.

"It is clear that the United States is facing increasing pressure in the matter of preparing for its survival. We can hope that the Soviets will become satisfactorily political dis-sension or be governed by leaders of less aggressive purpose, but we cer-

tion that education and religion are the keys?

"We have had a powerful and an abiding experience as a nation—one which, in this present crisis, buoy us with hope. To those who have decided that the American people do not understand how desperate their estate is, the answer may be that with death hanging in the balance they trust their experience. They believe that history is on their side and that they are on the side of the future.

"On our present height of land between two eras the problems are far greater than those existing in Lincoln's day, or perhaps even in Washington's. But at the same time we should, through our experience, be much better fitted to cope with them. Really it's not nearly as important that we live comfortably and efficiently as it is that we learn to live together, for we must live together if we are to live. Let us now all vow to display the same faith that Lincoln did, and exert an effort comparable to his, in seeing that our nation shall endure."

Water Key to N. D. Growth

Bismarck Tribune 2-25-59

Development of North Dakota's water resources is up to the residents of the state, Robert J. Timm, assistant state engineer with the State Water Conservation Commission, said Monday.

Timm spoke on the topic "Why Water?" at the Bismarck Exchange Club meeting and appeared in connection with National Engineers Week, which is sponsored annually by the National Society of Professional Engineers. Timm told Exchange Club members that development of the Garrison Diversion Unit, taking water from the Garrison Reservoir to irrigate some 1,000,000 acres of North Dakota crop land, would be a "springboard for industrial development in the state which would actually amaze all of us."

HE SAID one result of Garrison Diversion would be an increase of the state's population by 100,000 persons.

He said the Bureau of Reclamation has completed a report which indicates that Garrison Diversion, if approved by Congress, would have a benefit-cost ratio of 1.6-1, or, for every dollar invested the return would be \$1.60. He said this was taking into consideration the total cost of the project, estimated roughly at \$600,000,000.

If North Dakota doesn't get the diversion project, Timm said, Garrison Dam and Reservoir could be a definite liability to the state. He said North Dakota had already sacrificed 544,000 acres of land including 180,000 acres of rich Missouri bottom land for the reservoir project.

TIMM LISTED THE Missouri River as the state's major water source, but he said the State Water Conservation Commission in connection with the U.S. Geological Survey was in the process of cataloging other water supplies in the state. He said the survey was being started in areas which will not get Garrison Diversion water such as the northwest corner of the state.

The state engineer said preliminary studies in McKenzie, Williams and Divide counties areas were encouraging.

N. D. Men to Seek Garrison Report Speedup in D. C.

Bismarck Tribune 2-23-59

A nine-man delegation of North Dakota water resources development leaders will meet with high government officials in Washington Wednesday in an effort to speed congressional action on the Garrison diversion unit.

Gov. John E. Davis will head the group, going to Washington from Bismarck, Miss., where he will attend a meeting of the Executive Committee of the National Governor's Conference Monday and Tuesday.

Main aim of the group will be to seek assistance in prying the Garrison diversion report out of the Bureau of Budget, which must pass on the project before congressional hearings can be held.

"The project has been under final review by the policy section of the Bureau of Budget for several weeks," Davis said, "and we feel it is imperative that this review be completed promptly and the project report sent to Congress."

Among the persons the group is slated to see is Gen. W. B. Parsons, assistant to the President. Other members of the North Dakota delegation are:

Former Gov. Norman Brunsdale; Roy A. Holand, LaMoure, chairman of the Garrison Diversion Conservation Council; M. Christensen, state water commissioner; Devils Lake, LaMoure, Missouri River, and John O. Ziegler, Bismarck, Tribune, and State Engineer, Holmboe.

Other White House officials who will attend the conference include Robert Meriam, of the President's staff and Maurice H. Stans, director of the Budget Bureau.

The Bureau of Reclamation completed its report on feasibility of

Bismarck Tribune 2-28-59

Garrison Diversion Steps Ahead

North Dakota Reclamation leaders have a right to be more optimistic about Garrison Diversion prospects after their meetings with administration leaders in Washington this week. But any thought that it's "in the bag" would be both erroneous and dangerous.

There is encouragement in the simple fact that project backers got a chance to talk to President Eisenhower about it, and in the knowledge that he showed a personal interest.

There is encouragement also in the fact that Bureau of the Budget officials found relatively few questions behind which might be objections, to ask.

The project is a huge one, involving the expenditure of many millions of dollars over a period of years. However, if it can help to stabilize the area's economy, and to divert land from growing crops which are adding to expensive surpluses into the growing of

food and fiber that is needed, its returns will be substantially greater than its costs. That it will do this has already been well demonstrated.

It might be pointed out that a favorable report from the Bureau of the Budget is not always essential to congressional approval. However, Garrison Diversion is unusually large, and a declaration from the Budget Bureau, which amounts to a clearing house for the President's program, would be a tremendous stride.

It is important, therefore, that Congress get that report soon so that hearings may be held by the appropriate committees of House and Senate and so that the House and Senate themselves may pass upon the legislation.

The conferences Gov. Davis and his group had with the President and his policy makers may have been the most substantial boost to early clearance the project report has had.

Short Writes Like On Importance of Garrison Project

McClusky Gazette 2-25-59

The Garrison Diversion project is without question the most important consideration facing the state of North Dakota. Senator Frank B. Short declared in a letter to President Eisenhower.

Short said the Diversion project offers about the only possible solution for the large water shortage facing a very critical water shortage for municipal purposes.

Going To Washington 2-21-59

N.D. Delegation Seeks To Break Diversion Hold Up

BISMARCK (AP) — A nine-man delegation of North Dakota water resources development leaders will meet with high government officials in Washington Wednesday in an effort to speed congressional action on the Garrison diversion unit.

only, but in the nation's economy. He said that 18,000 gallons of water are needed for every ton of ingot iron, and 65,000 more gallons are required to turn that ingot into steel.

HE SAID THAT to produce one pound of beef on the hoof requires 3,750 gallons of water, including the water the steer drinks and the water required to grow the grass the animal eats.

The daily consumption of water in the United States, Timm said, is 220 billion gallons, and figuring a 1975 population of 220,000,000 this consumption could be raised to 440 billion gallons daily.

Timm said that at the present time there are about 1,200 billion gallons of water available in the United States daily. The problem, he said, is storing and using this vast water supply.

decide how such a project would fit into the national economy before Congress can proceed to act on a bill authorizing the project.

New Garrison Washburn Leader Exec Is Graduate Of West Point

Riverdale — The new Executive Officer of Garrison District is scheduled to be Capt. Howard L. Strohecker, Col. Lynn W. Pine, Garrison District Engineer, has been advised by the department of the army.

Captain Strohecker is due to arrive at Riverdale late in August. He will succeed Capt. Malcolm D. Johnson, who this year is completing a two-year tour of duty at Riverdale.

Captain Strohecker is a graduate of the U. S. Military Academy at West Point and Engineer Officers' Advanced Course, and holds degrees in military and civil engineering.

Gov. John E. Davis will head the group, going to Washington from Biloxi, Miss., where he will attend a meeting of the executive committee of the National Governor's Conference Monday and Tuesday.

Main aim of the group will be to seek assistance in prying the Garrison Diversion report out of the Bureau of Budget, which must pass on the project before congressional hearings can be held.

"The project has been under final review by the policy section of the Bureau of Budget for several weeks," Davis said, "and we feel it is imperative that this review be completed promptly and the project report sent to Congress."

Among the persons the group is

ter Commission; B. L. Dushinske, Devils Lake, president of the Missouri-Souris Projects Assn.; Editor John O. Hjelle of the Bismarck Tribune; H. W. Lyons, Jamestown; and State Engineer Milo W. Hoisveen.

Other White House officials who will attend the conference include Robert Meriam of the President's staff and Maurice H. Stans, director of the Budget Bureau.

The Bureau of Reclamation completed its report on feasibility of diverting water for irrigation from the Missouri River in July, 1957. However, the Budget bureau must decide how such a project would fit into the national economy before Congress can proceed to act on a bill authorizing the project.

lion acres of its best river bottom lands in providing a site for the Garrison Reservoir and a part of the Oahe Reservoir in South Dakota. "We feel it is only a fair exchange that our state be assured its proper share of the potential benefits from these reservoirs," Rep. Short stated.

Short said it is critically important that the Bureau of the Budget transmit its project report to Congress in order that hearings can be started. "Any assistance that you may see fit to give us," he wrote the President, "will be sincerely appreciated."

"I believe it is vital to the entire Missouri Valley power and irrigation picture that this program be approved as quickly as possible in order that proper consideration can be given to the use of power and water in all categories and all areas, in plans for the future."

Short said it is his view that potential benefits of the state's agricultural economy must be borne in mind that increased production of agricultural products on irrigated lands in North Dakota is many years away and that crops that would be produced are not among those in over supply are not that as time goes on and our population increases there is no question of the vital need for the increased agricultural production capacity.



Presentation of a silver tray to Col. Lynn Pine is made by Glen W. Benson, left, vice president of the Minot Chamber of Commerce at a farewell dinner for the colonel Wednesday evening. Looking on is Lyle Swigart, Chamber-manager. The event was held at Riverside lodge.

★ ★ ★ Minot Daily News ★ ★ ★ 3-5-59 ★ ★ ★

His Years In N.D. The Best, Col. Pine Observes At Farewell Dinner Gathering

The thought of leaving North Dakota is not a pleasant one, and the time spent here has been "the most pleasant" in his lifetime, is the declaration of Col. Lynn W. Pine, Riverdale, Garrison district engineer of the Corps of Army Engineers.

He expressed his regrets at departure at an informal dinner meeting Wednesday evening at Riverside Lodge in Minot, an af-

fair arranged by the military affairs committee of Minot Chamber of Commerce.

Handed to Col. Pine, as an expression of appreciation for the work he has done, was a silver piece on which both his and Mrs. Pine's names were engraved.

Later in the month Col. Pine will leave Riverdale on a new assignment which eventually will take him to Bolivia. For the next six

months he will attend an Army language school at Monterey, Calif.

Col. Pine paid tribute to the staff he has had at Riverdale, and emphasized that engineers "exist to serve" the nation and its people.

History of work in "harnessing" the Missouri river, climaxed with the construction of Garrison dam, was sketched at the dinner meeting by A. R. Weinhandl, who has been active in water development work. The cooperation given in water work by Col. Pine and his predecessors at Riverdale was described as "wonderful" and gratefulness was expressed by Weinhandl.

Lyle Swigart, Chamber of Commerce manager, saying that Col. Pine has been a good "military friend" of the Chamber, introduced Vice President Glen Benson, who made the presentation of the silver piece.

Presiding at the dinner was Leslie E. Maupin, chairman of the Chamber Military Affairs commit-

Salute To Colonel Pine

Minot Daily News 3-7-59

We'd like to add some words to those which have been spoken in the way of testimonial to Col. Lynn W. Pine, who is leaving the post of Garrison district engineer after approximately three years of service at Riverdale.

speakers, and sparking the activities of the post.

Of less importance than some other things, but something that needed to be done, and was, was the prompt action by Col. Pine in disposing of a long unsettled dispute between the government and the

of the construction work had been done on Garrison dam, under the direction of his five predecessors, Col. Pine has not been an executive who did nothing but park his feet on top of the desk.

As a matter of fact, he has been a very busy man, and is due commendation for accomplishments which required a man of intelligence, diplomacy and patience to achieve.

Among other things, Col. Pine brought to a conclusion successfully many months of negotiations with the city of Williston over costs of municipal relocations and construction.

Also, he went a long way toward giving a big boost to the industrial aspect of North Dakota by arranging for disposal of the lignite pile at Riverdale, for use by a fertilizer concern.

The name of Society of American Military Engineers became conspicuous as a result of work Col. Pine did in connection with the Riverdale post. He did an outstanding job in lining up "name"

on the John Moses Veterans Administration hospital in Minot.

As Garrison district engineer, Col. Pine has been what might be called the "boss" of two of the world's largest earth dams—Fort Peck and Garrison. It was after he came to Riverdale that Garrison district was expanded to take in Fort Peck.

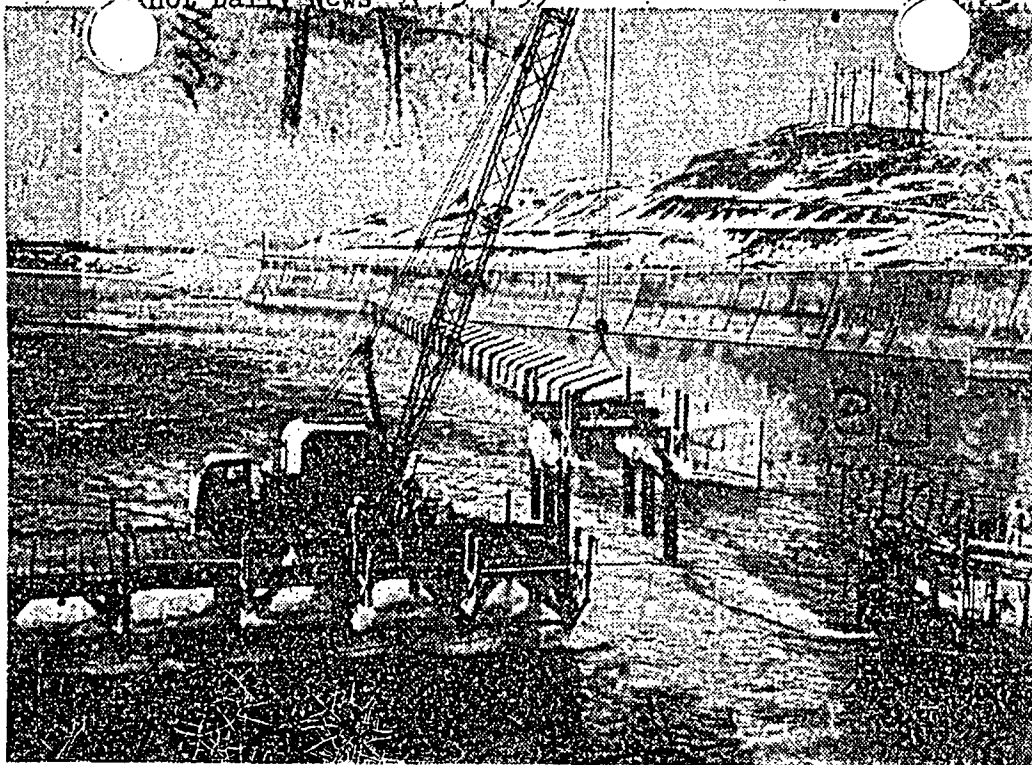
The uniform of an army officer tends to lend dignity to the person wearing it, but those who became acquainted with Col. Pine found that while he was a dignified and capable individual he also was a humble man and in civilian dress could radiate friendship, while still maintaining dignity.

The colonel hasn't forgotten he was born as a farm boy—and that it is a pretty good country which he serves and has honored him with high military rank.

Dignity and humility are two fine traits to be found in any person, and Col. Pine is a good example of a very successful blending of both.

from an assignment in Germany, will be succeeded by Lt. Col. Walter W. Hogrefe, who comes from Korea.

Accompanying Col. Pine to Minot for the dinner was Jack Bailey, public information officer at Riverdale.



Contractor's crews remove the final section of a construction bridge which has spanned the tail-race at Fort Peck Dam in Montana for the past couple of years. The bridge was used by the contractor, E. V. Lane of Palo Alto, Calif., in building the foundation for the second Fort Peck power plant. Work under this \$2 million contract was completed early this year. The next contractor on the powerhouse and switchyard structures will use giant cranes to transport his material.

Slowup in N.D. Diversion Investigation Disclosed

Bismarck Tribune 3-2-59

By JACK E. CASE
Tribune Staff Writer

Investigation work on the Garrison Diversion project in North Dakota has been slowed to coincide with the later target date for construction start, according to Bruce Johnson, Bureau of Reclamation projects manager in North Dakota. Personnel working on the subject has been cut from the 106 originally assigned to it to 60, Johnson said.

He estimated that about two-thirds of the 46 were working out of Bismarck, which would mean the Bismarck staff has been re-

exceeded \$400,000,000. This would have been more than it was felt Congress would be willing to spend. Personnel relieved from the Garrison project were assigned to other Bureau officers from Utah to Texas, Johnson said.

He said that despite the reduced personnel the investigation work will proceed smoothly because the reduction was made so as to cut a few persons in each type of specialty from land classification to design, so those remaining still comprise a workable unit.

AFTER THESE FIVE studies are completed, Bureau specialists are in a position to determine costs and benefits, from which a repayment contract can be formed.

Investigations now will be concentrated on five areas where irrigation districts have been formed and farmers have indicated a willingness to negotiate for the water.

Current work concerns five service areas totaling the 200,000 acres it is expected will be needed to warrant a start on diversion.

Farthest along is the Sargent County area near Oakes. Field work is under way in the LaMoure

2 Measures Have Bearing On Irrigation

Minot Daily News
By The News
State Capitol Bureau

BISMARCK — Only two major measures affecting the irrigation program in North Dakota were introduced in the 36th legislative assembly.

One was HB 664, which clarifies the inclusion or exclusion of land in a district, the other SB 154, setting up "electoral" for Garrison conservancy district directors.

The first adds to the basic provision to irrigation laws in the states, but merely provides, a workable procedure to accomplish desired changes in the lands that are a part of a district.

Under present law, relating to inclusion, owners of a majority of the acreage that can be irrigated who desire the land included must submit a petition to the directors. If, after a hearing, the board approves, the land is then included. However, should an objection be raised, an election has to be called.

The new law simplifies this procedure and gives directors more control, the basic change being that before a board would be required to call an election on the question of including lands in a district, a petition signed by at least 10 per cent of the owners of land subject to irrigation in the district, objecting to the inclusion, must be received.

The same method is followed in regard to exclusion of land.

Backing for the measure came from the State Water Conservation commission, which views it as a piece of legislation that will "eliminate the need for unnecessary costly elections, and still will permit the just consideration and action of the district on any reasonable request relative to including or excluding lands from a district."

The change in the method of naming directors of the Garrison conservancy district becomes effective with the 1960 elections, with directors elected then taking office in 1961. At the present, the posts are appointive.

The new law stipulates four-year terms for directors elected states

Business Power Practices Called Unfair

WASHINGTON (AP) — Interior Department power allocation practices in the Missouri River Basin were described as unfair and discriminatory Thursday by public and private officials from North Dakota, Nebraska and Montana.

Their criticism, along different lines, came as the Senate Interior Committee wound up its present hearings on problems involved in distributing the power produced at the large river dam sites.

Gov. John E. Davis of North Dakota, in a letter to chairman James E. Murray (D-Mont.), said the 548,000 acres of valuable bottom and grazing land taken in the state for Garrison and Oahe reservoirs "is an irreparable loss to both our economy and population."

He said this "should be a preponderant factor" in allocation of basin power to eligible users in such states.

Sen. Carl T. Curtis (R-Neb) contended that present allocations are "completely unfair and inequitable" to Nebraska, "the only state in the basin which has stood on its own feet, financed its own needs."

Colin Raff, vice president of the Montana Power Co., took the position that application of the preference clause by the Reclamation Bureau actually deprives Montana of "the opportunity to share the power which is produced in Montana."

The preference clause, which provides that preference customers such as municipalities and electric co-ops, get first consideration in allocation of federally produced power.

Davis' letter said reservoirs from Garrison and Oahe dams reach almost across the width of North Dakota "and create a barrier to all forms of land transportation." He suggested that loss of land for this purpose "be assigned a heavy weight factor in considering and allotting power quotas within such adversely affected states."

Garrison District
Minot Daily News
Engineers Say

The reductions were made after it was announced last year that the target date for start of con-

struction on the project to divert Missouri River water from Garrison Reservoir to north central and eastern North Dakota would be 1963 instead of 1961.

The amount of money allocated for investigation work also was cut from about \$900,000 the previous year to \$500,000 for the current fiscal year.

This (personnel and money) is enough to permit us to finish the work by the time construction is scheduled to start, Johnson said.

THE MOVE FOLLOWED start of work on the Upper Colorado River projects, Johnson explained. If Garrison Diversion work had started on the original schedule, Bureau of Reclamation officials figured the total annual cost of their program in the United States would have

service areas. The plan now is under consideration in Congress provided detailed information only on

the primary system which will deliver the water to the individual areas.

Now being studied are details of the service areas, of which it is estimated there will eventually be about 25. The entire project has been split into two divisions—one of 402,000 acres to be developed in the first 25 years and the other of 600,000 acres to follow later over some 50 to 60 years.

Investigation work on the service areas covers five general fields:

- A detailed topographical survey.
- Detailed land classification.
- Canal layout.
- A drainage system.
- Cost evaluation to include ditching and leveling.

area. Investigations have started on the Karlsruhe area near Velya and will start later this year on Souris District No. 1 between Upham and Minot.

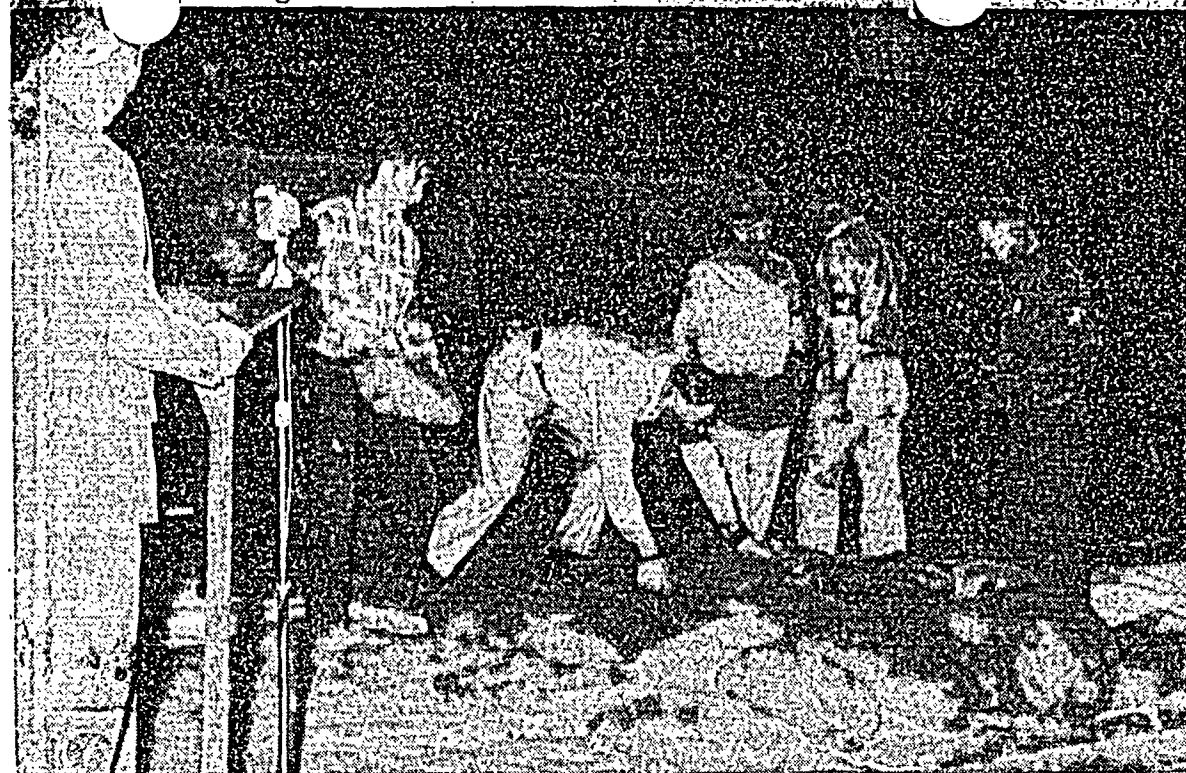
a place on the ballot must submit a petition containing the names of at least 50 qualified voters.

Basically, the bill was introduced because of a question concerning the constitutionality of an appointed board to make a tax levy.

Land Near Riverdale to Go On Auction Block

938 acres of land will be sold at public auction on Thursday, March 26, 1959, starting at 1 p.m., at Riverdale. This farm land is adjacent to the east city limits of Riverdale, which has been declared a surplus by the Government. Taylor and Martin, auctioneers from Fremont, Nebraska, are handling the sale.

RIVERDALE, Mont. Garrison District of the Corps of Engineers is looking for personnel to fill about a dozen heavy construction jobs at Riverdale, Williston and Fort Peck, Mont. The position openings are for concrete engineer or technician, office engineer, construction engineers and inspectors. Desired are persons who have had experience in large reinforced concrete buildings, dams, airfields, etc. Under construction at Fort Peck Dam is the 12th and 13th and 14th power plant. Units No. 1 and 5 are being installed at the powerhouse at Garrison dam and relocations and levee work are being done in the Williston vicinity. Persons interested in these jobs are requested to write to Personnel branch of the Garrison District, Corps of Engineers, Riverdale.



● As part of a practice flood exercise in Glasgow Monday, a crew from the Fort Peck area office of the Corps of Engineers staged a public demonstration at the civic center. Here, they are showing the proper methods of capping a flood dike with sandbags as Don Beckman, left, Fort Peck chief of operations, explains. George Haynes, right, is supervising the job. Others in the crew are George Boston, Kenneth Bondy, Cliff Doke, Richard Eriksen and James Leslie (Courier photo).

In a mock rehearsal of flood conditions that brought back memories of 1952 to Glasgow residents, personnel of the Fort Peck area office of the Army Corps of Engineers Monday went through a hypothetical threat to the city.

In a talk at a public program Monday afternoon at the civic center Maj. M. R. Downes, Fort Peck area engineer, said the condition simulated was that of an ice jam on the Milk river below Glasgow, which threatened the dike and homes and businesses of the city.

Representatives of other agencies involved in flood fighting and fighting spoke at the meeting, at which Buell, Hayward former mayor, president Hayward was mayor here in 1952 when a record flood threatened to overtop the Glasgow dike and an all-night fight was waged to save the barrier.

The practice mobilization here involved all agencies and Red Cross volunteer workers were on

hand to provide canteen services, just as they did in 1952, under direction of Mrs. Loretta Hoffmann, canteen chairman.

The public program followed a morning spent testing communications, personnel, equipment and administration.

Opening the program, Dwight Baertsch, meteorologist in charge of the Glasgow Weather Bureau station, explained the Bureau's role in river and flood forecasting services.

Forecast centers for this purpose are maintained by the Bureau throughout the United States, he explained. The Bureau does not interfere with but co-operates with other services offered by the Engineer corps and the U. S. Geological Survey.

Hayward explained how, when a community decides it can no longer cope with a flood fight, it may call on state and federal agencies for help. This happened in 1952, with the Corps leading the fight here.

Major Downes also told how the plan operates, and said the Corps may call on various agencies and other military establishments for help. Glasgow AFB would be most valuable in case of a flood here, he stressed. Air Force officers attended the meeting as observers. Dana Schrupp, county civil defense director, was also a participant.

Major Downes recalled how the 1952 flood fight here saved thousands of dollars in possible damage to homes and businesses.

He also told how he had worked with Mayor G. E. Kjelstrup and City Engineer Walter Magill in an inspection of the dike and its gates.

Don Beckman, Fort Peck chief of operations, directed and explained two demonstrations by Fort Peck personnel, using sandbags to show how to raise or "cap" a dike and also in constructing a ring dike to control a sand boil or leak.

A film on flood fighting followed. Women of the Red Cross served coffee and doughnuts.

3-17-59 Sent Mansfield Index Record Says Peck Dam 'Unhappy Story'

Washington, D.C. (AP)—Assurance that Montana will have a first claim on power developed from its own water resources was called for by Sen. Mike Mansfield (D-Mont.).

In a speech for the senate, Mansfield cited the Fort Peck dam in eastern Montana as an "unhappy story."

That project, he said, was intended to supply power for meeting Montana's needs. But Montana will receive less than 24,000 kilowatts of the 175,000 kilowatt capacity under a decision by the administration, he added.

"It seems to me, persuasive evidence, that allocations should be fixed by congress rather than left to the discretion of the department of interior," Mansfield said.

There are several Montana power sites which "cry out for federal development at an early date," he added, listing as examples Libby, Yellowtail, and Knowles dams.

Fort Peck Glasgow Courier Reunion Will Be March 21

All present and former employees of Fort Peck dam, dating back to its first construction days, are being asked to join in a 25th anniversary reunion, scheduled Saturday, March 21, at the Multnomah hotel in Portland.

As many Fort Peck people as can be located are being sent an announcement of the reunion, but all are asked to join in the occasion. Those who cannot attend are asked to drop a note to the planning committee, with general information about themselves to be posted on a bulletin board for out-of-town messages. Address of the Fort Peck committee is 4736 North Thirty First Avenue, Portland 11.

Letters have been sent out to nearly 400 ex-employees to date, it was announced by Howard B Strawn, committee member, in a letter to The Courier. A future reunion has been suggested in the Glasgow area.

Registration will be conducted all day, Saturday in the Multnomah hotel headquarters. A cocktail hour from 6 to 7 p.m. will be followed by a reunion dinner and program. Dancing is scheduled from 9 p.m. until 1 a.m. Sunday.

5 Garrison District Bid Openings Set

RIVERDALE—The Corps of Engineers within the coming six weeks will open bids on five contracts for construction work on the Garrison and Fort Peck dam projects.

Advance notices have been mailed from the Garrison District offices at Riverdale on the following projects: Emergency bank protection, Shoshone River, Lovell, Wyo., bid opening March 26; Flood protection project on Little Missouri River at Marmarth, bid opening April 2; relief wells for

PROTECTION PLANNED

RIVERDALE, N.D. (AP)—The Albert & Anderson contracting firm of Miles City, Mont., was apparent low bidder for a contract to build flood protection works at

Peck, opening April 14; roof repairs, power plant No. 1, Fort Peck, April 23. The jobs are all units of the Missouri River Basin Project.

Completion time for the Lovell protection works which consist of 9,600 cubic yards of earthwork and rip-rap is 60 days after notice to proceed. The Marmarth project, which entails the placement of more than 200,000 cubic yards of levee material, has a completion deadline of Dec. 1. The 74 relief wells, excavation and fill and piping at Williston has a completion time of Oct. 30, 1960. The Fort Peck power plant equipment must be delivered by March 1, 1960, and completion time for repairs on the roof of the Fort Peck powerhouse No. 1 is Oct. 15.

of about 205,000 yards of embankment, 2,400 yards of gravel, rip-rap, drainage structures and seeding of 23 acres in flood levees on the left bank of the Yellowstone River.

The purpose would be to protect Glendive from floods such as the one that inundated West Glendive late Wednesday and early Thursday.

The Albert & Anderson firm bid \$164,930 to do the work. The government estimate for the job was \$152,578.

Four firms in all bid on the contract. Bids were opened by the Army Corps of Engineers. The job must be completed by Nov. 19. The Garrison District of the Corps of Engineers will supervise the work.

Great Falls Tribune
3-22-59

**Army Engineers
To Visit Council**
3-16-59
The Sheridan Press, a newspaper representative from the Army engineers, will be in Sheridan March 30 for a meeting with the city council, according to a letter received today from H. K. Beene, acting chief, Garrison district, Riverdale, N. D.
The meeting is set for 7:30 p. m. Councilmen had requested a meeting to discuss general questions with the engineers. Contracts for the first unit of the Sheridan flood control project are scheduled to be let in the near future.

Basin Dams Glasgow Courier 3-19-59 Gain In Storage

OMAHA, Neb.—Water storage in the Missouri river main stem system of reservoirs stood at 21,080,000 acre feet at the close of February. This represented a slight gain over the previous month, according to the Missouri river reservoir control center report.

Operating schedules at the four system reservoirs during February were maintained at customary winter levels. This pattern will prevail through most of March. However, beginning on March 26 reservoir releases will be gradually increased at the Gavins Point dam near Yankton, S. D. in preparation for the opening of the 1959 navigation season and the increased stream flow requirements downstream.

Total power generation at the four operating powerplants in February amounted to 198 million kilowatt hours, a 13 percent gain in power production over February, 1958. Water scheduling in February, 1959 was balanced out to facilitate maximum feasible power production schedules. Garrison releases averaged substantially higher than at Fort Randall and Gavins Point. Excess Garrison water above lower river winter requirements was recaptured in Oahe and Fort Randall, where it will be saved for spring and summer requirements.

Total power generation at Fort Peck during the month was 48,000,000 kilowatt hours, with releases amounting to 388,000 acre feet, all passing through the power turbine. Records of the reservoir control center show that a total of 198,000,000 kilowatt hours of electricity was generated at the four main stem plants in February. The peak coincidental power generation was 482,000 kilowatts between 11 a.m. and noon, CST, on Monday, Feb. 9.

Sunday, March 15, 1959 Great Falls Tribune

Simulated Flood Disaster

Glasgow Courier 3-12-59 Federal, State, Local Agencies Will Join In Practice Exercise, Program

A practice flood exercise will be held at Glasgow on Monday to test the capabilities of the Corps of Engineers flood fighting plans and organizations and the effectiveness of the mobilization potentialities and procedures of the city of Glasgow for flood emergencies, it was announced by Maj. M. R. Downes, area engineer, at Fort Peck.

Mayor G. E. Kjelstrup, City Engineer Walter Magill, and other city officials of Glasgow, together with local representatives of the Weather Bureau, Civil Defense and the Red Cross are co-operating with the Corps of Engineers in the plans for the flood exercise.

The morning part of the exercise will include a simulated "situation" involving rising waters in the Milk river at Glasgow, with ice jams forming downstream from the city causing a portion of the levee, which protects the city against flooding, to be in danger of being overtopped and in need of additional capping (sand bagging).

The condition becomes so "critical" the mayor feels the emergency

is beyond the capabilities of Glasgow and requests the governor of Montana to declare a "state of emergency." In addition, he requests that the Corps assume leadership of the flood fight.

The "problem" also will include necessary action on instructions contained in sealed envelopes to be opened at intervals throughout the morning. These will involve a mobile task force unit dispatched to Glasgow from Fort Peck to organize the simulated flood fight, and the simulated use of city employees and local volunteers.

The Corps of Engineers task force team will be composed of especially picked and trained personnel for the purpose of taking action to combat floods.

The practice exercise also will include a public program at the Glasgow civic center beginning at 2 p.m. Buell Hayward will be master of ceremonies. It will consist of a demonstration by the Corps of Engineers on the proper methods for sandbagging a section of levee, the erection of a ring dike for sand

boils that may develop back of a levee during flooding conditions, and several short talks by city, county and federal officials on their respective spheres of responsibility during flood emergencies.

Those participating in this portion of the program will be Mayor Kjelstrup for the city of Glasgow; Dwight Baerisch of the Weather Bureau; Dana Kjelstrup, director for county civil defense; Gordon White, county Red Cross disaster chairman, and Major Downes, Hugh Potter, state director for civil defense, has been invited and will speak if he is able to attend.

Don Beckman, chief of the Fort Peck project operations division, will direct the flood fighting team's activities and give the narration for the demonstration.

A Corps of Engineer film, "Flood Fight," also will be shown, which depicts typical methods for the strengthening of levees and other procedures for fighting floods. Women of Valley County chapter of the Red Cross will serve coffee and doughnuts.

Glasgow Courier 3-12-59

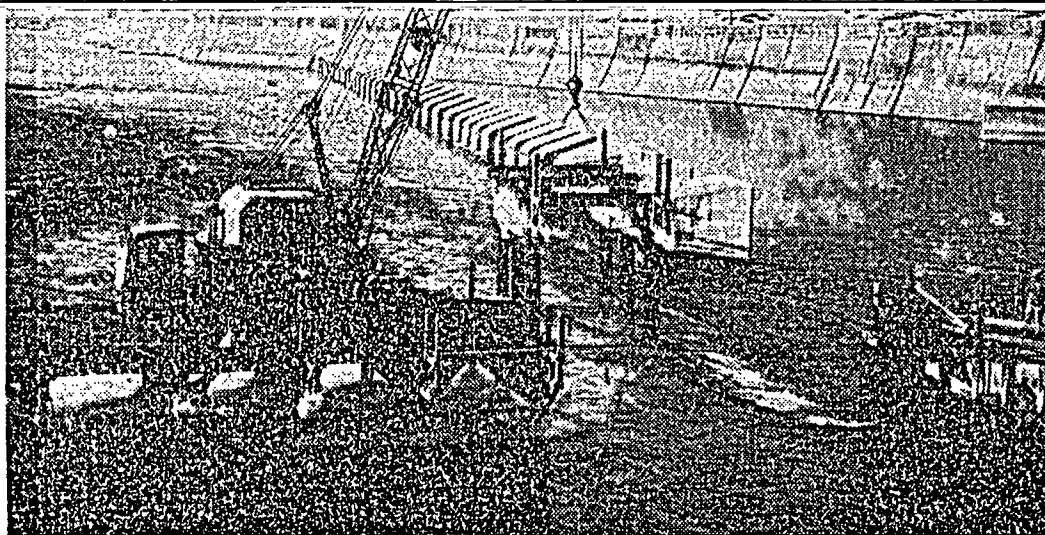


Two Dams Do Good Job of Protecting City from Flooding

The amount of water flowing through the Bull Hook channel is relatively small as most of the water behind the Bull Hook dam south of the city has been drained off.

Wednesday the grating at the base of the dam was showing.

Shortly water from the Scott coulee dam will be drained through the Bull Hook channel and again the public is cautioned to warn children not to play near the channel until draining is completed.



BRIDGE REMOVED—Photo shows contractors' forces removing the final section of a construction bridge which has spanned the tailrace at Fort Peck Dam the past couple of years. The bridge was used by the contractor, E. V. Lane of Palo Alto, Calif., in building the foundation for the second Fort Peck power plant. Work under this \$2 million contract was completed early in 1959. The next contractor who will build the powerhouse and switchyard structures will use giant cranes to transport his material to the work site.



● **AWARD** — Alfred E. Jorgensen, chief of the plant repair section, operations division, Corps of Engineers, at Fort Peck is shown at right receiving a special certificate of commendation from Col. Lynn W. Pine, Garrison district engineer. The award was presented to him in recognition of his initiative and supervisory techniques used in promoting efficiency and reducing costs in all operations under his supervision, July 1 through Dec. 31, 1958.

there is no question city officials have stated that the project has prevented flooding within the city particularly in the south end.

Some people have asked why the water cannot remain impounded behind the dams instead of being drained. They are reminded that the Corps of Engineers under whose direction the dams were built has repeatedly stated that the dams are for flood control purposes.

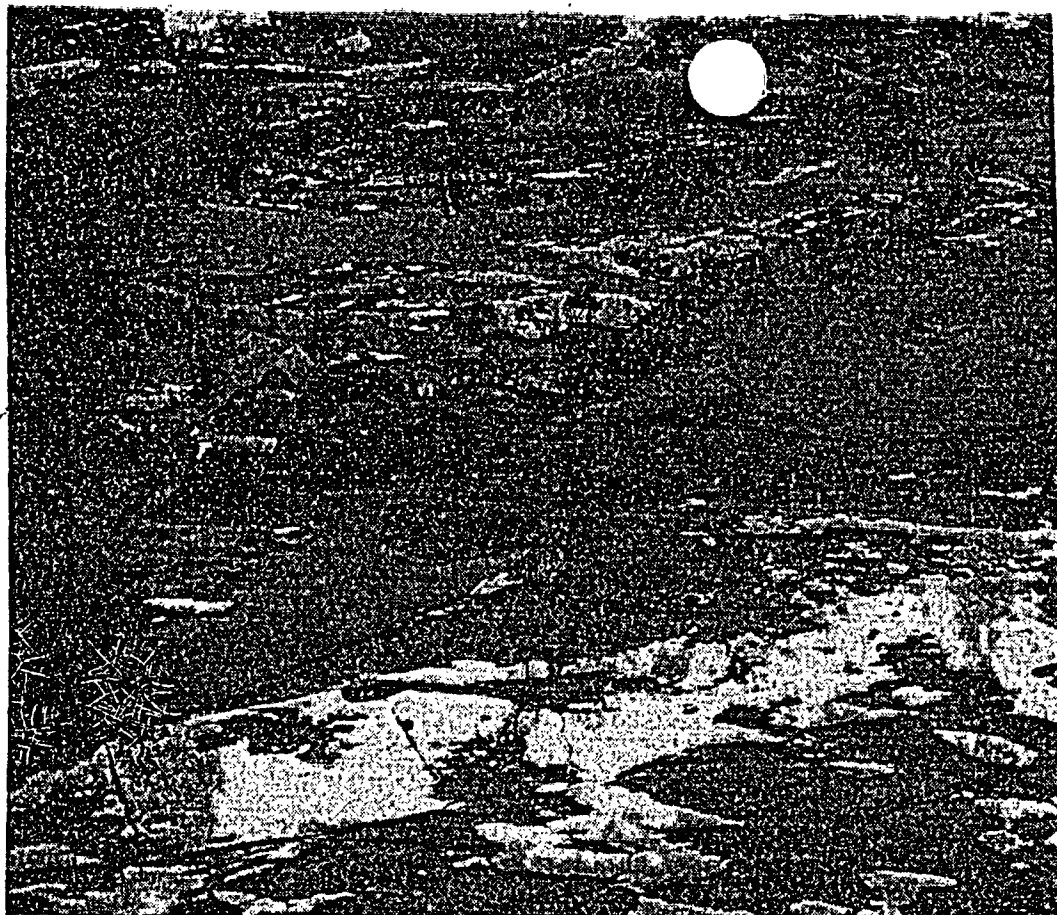
Impounding of water could possibly lead over a period of time to a weakening of the dams. It is necessary to have a controlled runoff through the old Bull Hook channel which before the project was completed often overflowed and caused much property damage. Now property is protected immeasurably by the project.

water for the first time would
reach the concrete spillway
gate structure, covering the ap-
proach channel to a depth of

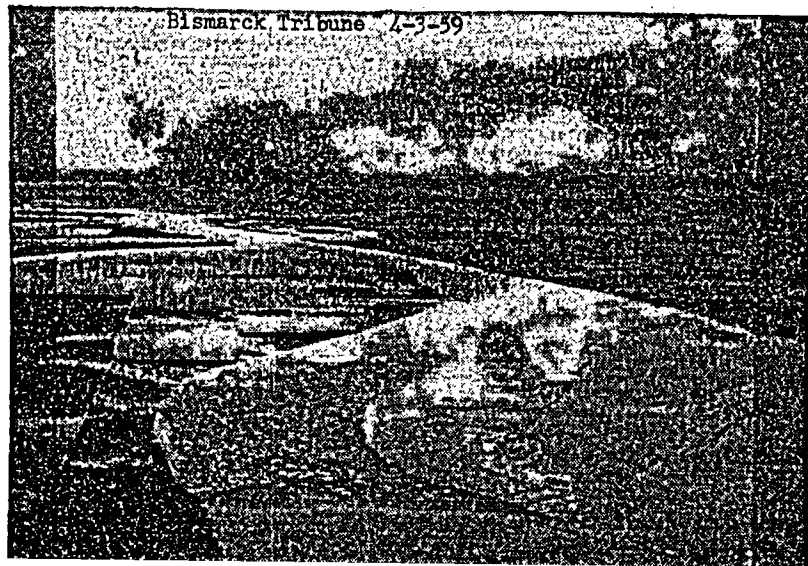
elevation this past winter, was
1791 msl. Due to snowmelt, it
had reached an elevation of
1794.3 as of today, March 23.

structure of the downstream
Dam on the Grand. It
reviewed flood control plans
for the Souris River (upstream
from Mipota) and by resolution
asked the appropriation of funds
to finance a study by the Corps of
Engineers on further Souris flood
control possibilities.
The commission agreed to par-
ticipate 25 per cent of the cost
of the proposed Blacktail Dam on

of the Cannon Ball River (near
Selfridge).



MIGHTY MITE ON RAMPAGE — This is an aerial view of the Knife River in flood in the vicinity of Manning. Although one can ordinarily jump across this stream in its upper reaches, at flood stage it can isolate ranches and farms as this Corps of Engineers photo illustrates.



Bismarck Tribune 4-3-59

Budget Bureau Holding Garrison Divergent Report

Rep. Don Short, said he is alarmed at the thinking of many congressmen who have no conception of the vital part reclamation plays in the West.

The main misconceptions about the irrigation project are that it will bring new land into production and will add to the agricultural surplus, he said.

But the biggest obstacle, he said, is the overall desire to cut down on federal spending; a real effort is being made to trim appropriations.

Opponents must be told that the argument that commodities already in surplus will be created is false; the project will not be producing for some time. Most of the products are not now in surplus and certainly will not be when irrigation is operating on the Garrison unit.

Congress must be told, too, that North Dakota entered the Missouri Valley program in good faith and provided land for reservoirs in the interests of the overall project, he added.

This was done with the understanding that irrigation must be a part of the overall benefits and that North Dakota is entitled to its share.

There is no indication at present when the report will be released; it may be in a week or two or, then again, it may take a couple of months, he said.

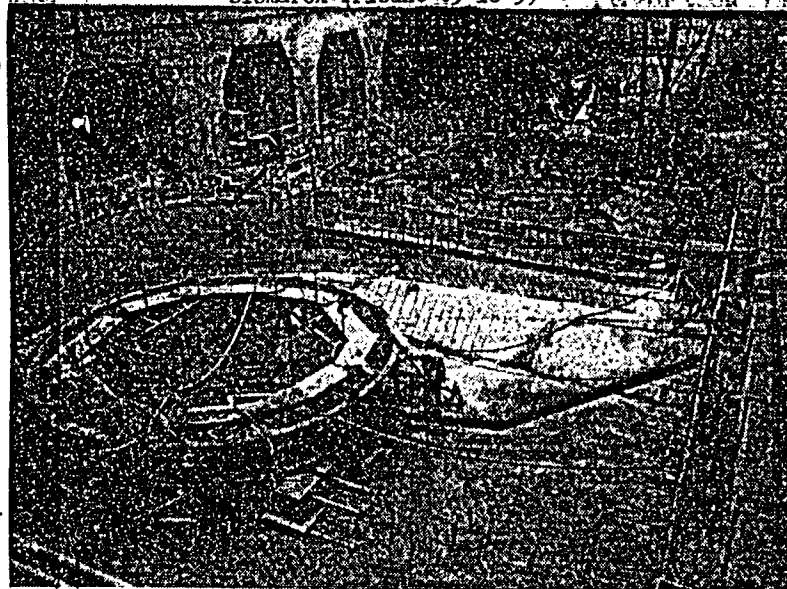
He also cautioned that they may have to settle for a modification of the project with some monetary limitations.

He believes monetary limitations will not be so bad, but said acreage limitations would mean we'd have to return time and again to obtain approval to add new land to the project.

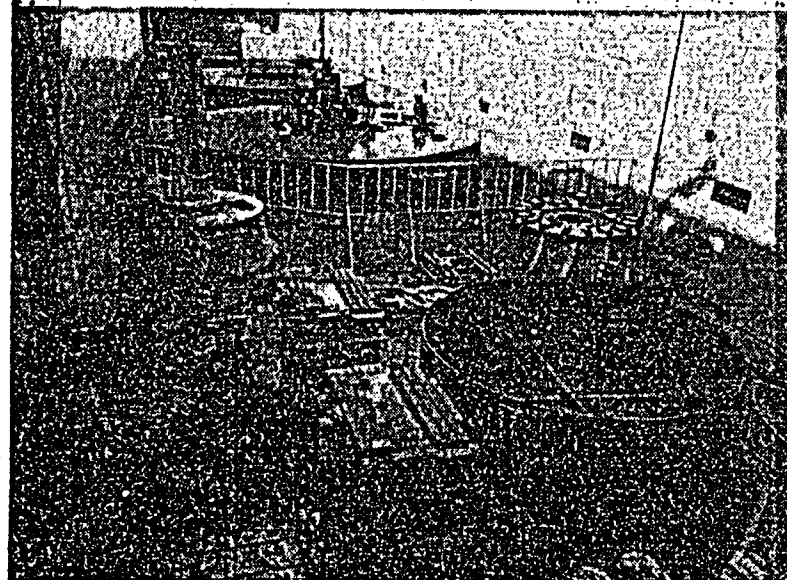
Rep. Don Short, said he is alarmed at the thinking of many congressmen who have no conception of the vital part reclamation plays in the West.

JAM WHAT AM! Here is the ice jam in the mainstem of the Missouri River as it finally came to rest about 15 miles downstream from Williston about a week ago. On March 23 it had caused a record high flood stage of 20.63 feet on the gauge at the Lewis and Clark bridge west of Williston. (Corps of Engineers' Photo.)

man, and Vernon S. Cooper, of Bismarck, secretary-treasurer. The directors meet in Riverton, probably the first week in July.



POWER UNITS — Several million dollars worth of construction work on power units Nos. 4 and 5 at Garrison Dam is graphically illustrated in the photos above. Upper photo shows the work on the scroll cases for the two remaining power generators. No. 4 in the foreground is being embedded with concrete and unit No. 5 in the background is being prepared for the final pieces of generating equipment. A section of the scroll case can be recognized. Lower picture is a wide-angle lens view of the erection bay in the east end of the powerhouse. Two turbine runners are in the background; with a scroll case connection for unit No. 5 being assembled in the foreground. To the left of the connection are transformers recently supplied by Ferranti, Ltd., of London, a British contractor. P. S. Lord Mechanical Contractors of Portland, Ore., is doing the work shown in the photos. Under current schedules, generator No. 4 will go into service in January, 1960; No. 5 in July, 1960. When completed, the Garrison power plant will have an installed capacity of 400,000 kilowatts. Three generators have been in service since 1956.



State Engineers Says

Diversion Holds Key To New Farm Families

The proposed Garrison Diversion unit which are presently in surplus project is "unique" in that, while it proposes to irrigate 1,107,120 acres, it also will have a direct effect on 2,380,000 additional acres of dryland farm land.

That adds up to 3,387,500 acres of North Dakota land which would be benefitted.

Making the observation was Mild W. Holsveen, State Engineer, who went to Washington as representative of Governor John E. Davis.

Among the many important points stressed in Holsveen's report were these:

It is estimated nearly one million head of feeder cattle, or their equivalent in other types of livestock, could be fed on farms irrigated by the Garrison Diversion.

Durum wheat is planned as the only wheat that would be grown on the 1,107,120 acres of irrigation because it would be the most profitable. What crop and to not regarded as plus. Flax and soybeans appear to be the only crops that will be grown in the state, to seek employment elsewhere.

Surplus U.S. Land To Be Auctioned

RIVERDALE, N.D. (UPI) — A "make believe" flood-fighting exercise staged Monday at Mandan, N.D., and Glasgow, Mont., was called highly successful Tuesday by Franklin M. Lee, chief of the Garrison Engineer District operations division.

The exercise, carried out by Army Engineers, was designed to test the ability of the Engineers to avoid damage to the two dikes from the waters of the Hart River at Mandan and the Milk River at Glasgow.

The streams are two problem rivers in the Garrison District and have required dikes to keep them under control during flood seasons.

During the 1958-59 engineers and technicians were dispatched from control headquarters at Riverdale, N.D., to Mandan and Glasgow to establish radio links between the two points. Forces from the

Flood Fight Practice Said Successful

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HONORED Twenty-nine employees of Garrison District of the Corps of Engineers who have operated motor equipment for five years or more without an accident were presented with safety awards by Col. Lynn W. Pine, former Garrison District Engineer, at a ceremony in Riverdale. The honor group, seated, left to right: H. Schmidt, C. Hennenfent, D. McDermid, R. Erath, E. Phalen, A. Kryweski and H. Green. Standing, left to right: E. Voeltz, R. Preisinger, L. Hanson, L. Halvorson, S. Kadlec, W. Bisher, R. Weber, R. Eng, L. Michlitsch, C. Arndt, H. Brewster, E. Stark, W. Kottick, D. Wult, F. Bennett, H. Thorstad, J. Leier, A. Deprey, L. Miller, P. Jahner, E. Paulson, V. O'Brien, and Col. Pine.

Drawdown At Garrison Remains High

Garrison Reservoir, which has been drawn down to its lowest level in a month of February, and a month's end was 11 feet below its level at the same time a year ago.

Statistics released today by the Missouri River Reservoir Control Center at Omaha, Neb., showed a loss of 201,000 acre-feet of storage at Garrison during the month while the net gain in the entire main stem system was 79,000 acre-feet.

Ft. Peck was drawn down 66,000 acre-feet and Gavins Point 28,000 while a gain of 139,000 was recorded at Fort Randall and 35,000 at Oahe.

Ft. Peck's third straight month Garrison was the big power producer, turning out 44 million kilowatt hours. Figures for the other dams showed Ft. Peck, 48 million kilowatt hours; Gavins Point, 23 million; and Fort Randall, 43 million. Oahe, which is producing power.

Beginning March 1, the Corps of Engineers hydrologists expect Garrison Reservoir to crest at a new Missouri is breaking up in the high elevation of 1,813 feet above vicinity of Yellowstone River.

Col. Hogrefe Will Assume Riverdale Duties in April

RIVERDALE — Lt. Col. W. W. Hogrefe will arrive in Riverdale with his family early in April and will assume his duties as Garrison District Engineer, full-time on April 13.

The Corps of Engineers officer made this announcement during a four-day stay in Riverdale following his return from an assignment in Korea. He designated Maj. M. R. Dowell, former Area Engineer, as acting district engineer during the three weeks or leave he is spending with his wife and six children in Carlisle, Pa. Col. Hogrefe succeeds Col. Lynn W. Pine who left North Dakota March 10.



COLONEL Hogrefe was born in Washington, D.C., Feb. 6, 1919. He was commissioned in the Army Corps of Engineers in 1942 upon graduation from the United States Military Academy at West Point. He was almost immediately assigned overseas and served as company officer and executive officer with the 326th Airborne Engineer Battalion in Europe.

Upon his return to the United States, Colonel Hogrefe served briefly with the 307th Airborne Engineer Battalion, at Fort Bragg.

N. O. before attending Iowa State College, where he received a Master's Degree in civil engineering in 1947.

From 1947 to 1949, Colonel Hogrefe was assigned to the office of the Chief of Engineers, Washington, D.C., where he served in military supply. He then attended the Advanced Engineer Officers Course at the Engineer School, Fort Belvoir, Va. In 1950, he became a staff officer in Japan headquarters of U.S. Army Forces, Far East.

RETURNING to the United States in 1953, he attended the Command and General Staff College, Ft. Leavenworth, Kan. From 1954 to 1956 he was commanding officer, Engineer Detachment, Special Regiment, U.S. Military Academy, West Point. From 1956 to 1958 he was commanding officer, 326th Engineer Airborne Battalion, Ft. Campbell, Ky. From March 1958 until his Riverdale assignment, he was acting district engineer for the Corps of Engineers, Garrison District, in Korea. As Garrison District Engineer, Col. Hogrefe will have jurisdiction over all Corps of Engineers projects in the Missouri River Division, north of the Missouri River, including the Yellowstone River and the Yellowstone Dam and Reservoir. He will also be responsible for the operation of the Garrison Reservoir.

Garrison Reservoir Will Crest at New High of 1,813 Feet

RIVERDALE — Corps of Engineers hydrologists expect Garrison Reservoir to crest at a new Missouri is breaking up in the high elevation of 1,813 feet above vicinity of Yellowstone River.

New Report On Diversion Presented

WASHINGTON — A new report on the proposed Garrison diversion project was presented to the Bureau of the Budget and a presidential adviser Tuesday.

Milo W. Hooten, North Dakota state engineer, turned over the supplementary information to the Bureau and to Presidential Assistant Robert E. Merriam as a result of a conference at the White House Feb. 25 at which Gov. John E. Davis of North Dakota met with President Eisenhower.

MAIN POINTS stressed in the latest presentation are that crops to be grown on the North Dakota irrigation project will not add to farm surpluses and that only a small part of land now in the conservation reserve will be restored to production.

The proposed Garrison diversion unit, still needing congressional authorization, would divert water from the Missouri River at Garrison Dam to irrigate about 2 million acres over a 65-year period.

The new information notes that durum will be the only wheat grown on the irrigated land, and that durum is not in surplus but rather is in short supply.

DAVIS, in his section of the new report said:

"Flax and soybeans appear to be the only crops that will be grown on the Garrison diversion unit which are presently in surplus. The small fraction of these two products that will be grown on the project would not have much of an adverse influence on the national surpluses. It is also quite possible that these two crops will not be in surplus when they are produced on the Garrison diversion unit."

The second question asked by White House aides last month was whether irrigation would result in returning soil bank land to production.

USING FIGURES supplied by the Agricultural Stabilization and Conservation Service, the governor said only 31,019 of the more than 1 million acres potentially irrigable are now in the conservation reserve part of the soil bank program.

Davis also noted that under the present timetable, "call for" 1963 start of construction of the land would be irrigated with flax and that only 31,019 acres would be irrigated by 1963, which time food surpluses are expected of the past.

It is also noted that under the present timetable, "call for" 1963 start of construction of the land would be irrigated with flax and that only 31,019 acres would be irrigated by 1963, which time food surpluses are expected of the past.

District Engineering Division here, said the 1,813 mark was forecast currently for about Aug. 15, following what is known as the "flood rise." The previous peak, which reached 1,808.5 feet, occurred in August of last year. At elevation 1,813, the water for the first time would reach the concrete spillway gate structure covering the approach channel to a depth of about three feet.

Surgeport said the Milk River, which joins the Missouri River nine miles south of Fort Peck Dam, was the only tributary offering any prospects of flood trouble. He said the Yellowstone, Power, Knife, Heart and Little Missouri rivers currently are flowing in orderly fashion. Garrison Reservoir's best elevation this past winter was 1,791 feet.

BY JOHN LEWIS

And, more possible trouble, ap-
peared to be in store.

located just below the fairgrounds.

The latest information on the condition of the river stated the water

Another ice jam at Savage was reported with the low-lying farm

The Yellowstone cut loose last night about 11:00 p.m. with land

This eventually came about with the water and the rain down

The east side of the river, however, did not suffer much dam-

A lone skunk lost his life apparently after being carried into

In Glendive proper, the athletic field on Main Ave. was buried

Water was reported rising in the River View Park area but not

Three men were rescued from the top of their auto when it fell.

Marsh Road. Rescue personnel went to their aid in row boats and

area were unable to leave and are reportedly still stranded.

Large pieces of ice being crushed

Finally, after the river had reached a level of about eight

11-15-59

Maj. M. R. Downes, Fort Peck

Some lowlands were flooded and
the clouds were full last year.

Some lowlands were flooded.

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being checked are some of the milk tributaries such as

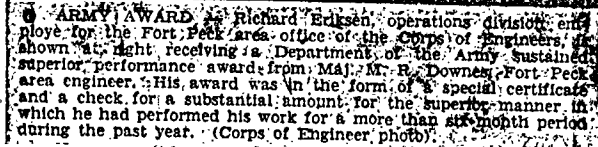
Valley farmers agreed that flood and slough flooding was

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Fort Peck reservoir showed a

The reservoir elevation at midnight March 17 was 2198.277' w

Reservoir, Elev. 4000 ft. (midnight)



1990

The winter of 1936 when the Oceanic Hotel in Portland

Manson, H. Bailey, Sr. of Glasgow
and Mr. and Mrs. George Haynes

The meeting centered in a cocktail hour and banquet at the Mount

RIVERDALE, N. D. (API) - T

Sykes bid \$13,678 on the project about \$5,000 less than the other

Abstracts of state law authorities

Dick Guenzi of the disaster control committee stated that there could have been a major catastrophe if the jam had held the rapidly rising water.

Members of the disaster group manned their posts during the night and still are on duty today. Guenzi said the group will continue to operate until all danger from the river is past.

1000 is the amount of water required to cover one acre one foot deep. A 20 ft. high dam would hold back 200,000 cu. ft. of water.

City Flood Damage Nearly Million Dollars Since 1923, Say Engineers

(Wyo.) Sheridan Press 4-3-39

Flood damage amounting to \$955,000 was suffered in Sheridan during the years 1923 through 1946; according to an Army engineers report.

This amount, \$363,720 is attributed to Goose creek, and \$591,280 to Little Goose creek.

The average annual loss for the period of record, 23 years, based on total damages listed . . . is \$12,314 per annum for Goose creek, \$25,115 per annum for Little Goose creek, and \$41,523 per annum for the combination of the two creeks," the report states.

For floods, the report says, have occurred in Sheridan in July and September of 1923, June 1935, March 1939, April 1943, and May and June of 1944. Information on the floods was obtained first hand from residents, newspaper accounts, charge records, and precipitation records. A complete field investigation was made immediately after the 1944 flood.

Minor floods have occurred in Sheridan, says the report, in June 1924, May 1923, June 1933, March 1936, June 1945, and June 1946. A complete field investigation was made immediately after the 1946 flood.

Minor ice jam floods have occurred on Little Goose creek on several other dates. The city was subject to free flow minor floods at other dates. . . . A major flood was reported in 1908 caused by rapid melting of 20 inches of wet snow. A major ice jam flood was reported to have occurred in 1883. Many other floods have occurred previous to 1923 but records are incomplete as to areas flooded, damage incurred, and the causes of the floods.

Floods for the 23-year period covered totaled 13. They results from four conditions or a combination of them. These were: Intense or general heavy rains over the Big Horn mountains; rapid snowmelt in the Little Goose or Goose Creek basins; ice jams above Coffeen avenue bridge on Little Goose creek; and ice jams against the diversion dam of the flour mill on Goose creek.

According to a summary, the two creeks created damages as follows:

July-Sept. 1923,	\$112,680	Goose creek,	and \$234,420	Little Goose;
1935, June,	\$30,960	Goose creek,	\$49,580	Little Goose;
1937, June,	\$46,200	Goose creek,	\$22,300	Little Goose;
1944, May-June,	\$25,800	Goose creek,	\$58,450	Little Goose;

flooding, the report states, are in general those areas adjacent to or within the meanders of Goose and Little Goose creeks.

Flood areas along Goose creek specifically are the Leopard and Lynx street area. The Beckton avenue and N. B. avenue area, Badger street areas as far north as Burkitt street and the Morrill street, Kendrick Park area.

Reviewing each of the major floods, the engineers study says: July-September 1923 — "On the night of 22 July an intense rainfall of 2.65 inches in two hours was recorded at Sheridan and heavy rainfall was general over the Big Horn mountains near Story. Little Goose creek overflowed its banks in the southern part of the city and filled basements with water and flooded the first floors of residences. Eight blocks of wood paving on Main street were destroyed by flood waters. An area east of the railroad tracks was inundated and a large grocery store in this area was severely damaged . . . The city of Sheridan started a comprehensive paving program immediately following the July flood."

On Sept. 27, 1923, Goose and Little Goose creeks rose to flood stage caused by general heavy rains over the Big Horn mountains. Flood waters from Little Goose covered a wide strip from Gladstone and Gould streets to the C. B. and Q. tracks. Some homes were flooded on the first floors to a depth of five feet. The first floor and basements of business establishments were covered with water. The flood waters of Goose creek above the confluence with Little Goose inundated areas along the sharp bends of the stream.

Flood waters in Sheridan, the report continues, in 1923 damaged approximately 300 residences, gardens, business establishments, industrial establishments, the majority of the city's wood block paving, a large school, city utilities, telephone facilities and several bridges. The foot bridge in the city park was destroyed.

June, 1935 — Heavy general rains in the Big Horns caused both creeks to overtop their banks on June 14. The flood on Little Goose inundated the area above Coffeen avenue. About eight inches of water flowed over Avoca avenue from the south. Residents, an entire cabin camp, small business establishments, one industrial establish-

ment, and telephone facilities, were damaged.

June, 1937 — Heavy rains in the Big Horn mountains west of Sheridan resulted in a major flood on Goose creek and a minor flood on Little Goose. Flood waters on Goose inundated the Leopard street, Beckton, Badger, Morrill, and Kendrick park areas. Basements were filled, gardens and truck farms suffered costly damage, and several homes were flooded on the first floor. Water was three to four feet deep in some areas. The two creeks were above flood stage for a period of 36 hours and both carried a large amount of silt which increased the damage.

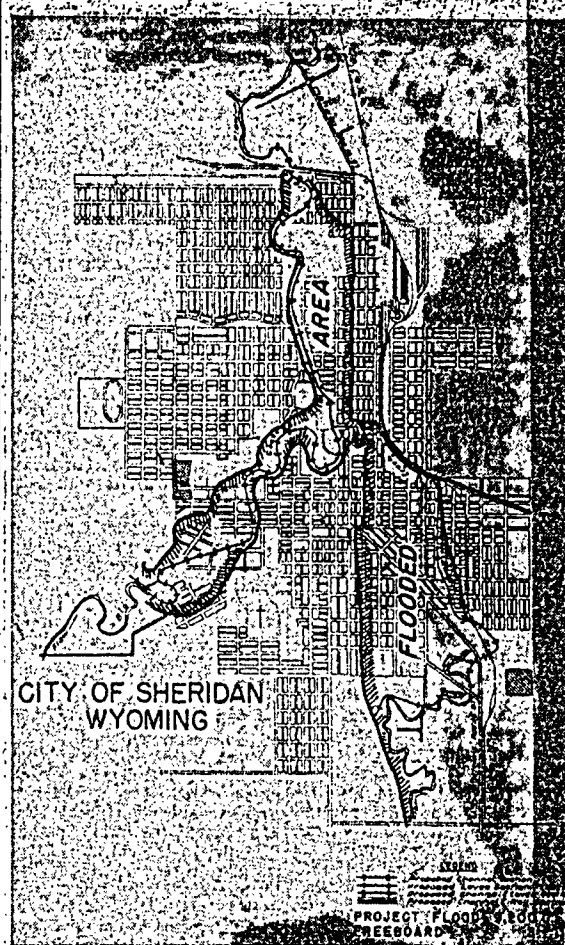
May and June, 1944 — A heavy rain on May 18 combined with rapidly melting snow in the Big Horn mountains resulted in flooding on Little Goose and Goose creeks on the evening of the 18th. Flooding occurred again on June 3 and 4 due to an intense local rainfall of 3.32 inches on June 3. Damage from the first flood occurred mainly along Big Goose Creek to residences, utilities and business establishments. The latter flood caused the most damage along Little Goose creek. Residences, truck farms, business establishments, and industrial establishments were damaged.

The report, which is part of city files on the \$2,000,000 flood control project proposed for Sheridan, does not cover any highwater or flooding after 1946 although some has occurred. There are no figures available on any damage after 1946. Around three years ago water did inundate the Thorne-Rider park area.

Discussing potential future damages, however, the engineer's report does say that a "recurrence of any of the past floods of record would inundate approximately the same areas as those in the past."

The population of the city of Sheridan has increased, as have normal business activity, the report says.

Flood Areas Illustrated



In this illustration, which was provided by the Army engineers, the general area of Sheridan flooding which has occurred is shown. The flooded area involves 500 acres. Average height of levees proposed under the flood control program is 10 feet, and the length of levees is 41,400 feet. Average width of levees is 140 feet, and length is 3,080 feet. Average height of levees is nine feet, and length is 12,700 feet. This project was authorized by the 1950 flood control act, approved by Congress and purpose of the program is for protection of residences, commercial establishments, public buildings, streets, and public utilities against floods on Goose and Little Goose creeks.

11-18-08
Areas of the city subject to street and Morrill street areas were



RIVERDALE. The Army Engineers issued a request this week that fishhouse owners remove their shacks from Garrison Reservoir shoreline land. Several of the winter fishing houses can be seen in the accompanying photo. The engineers say that when high water comes this summer the houses will be set afloat and present a salvage operation for Garrison District forces.

Another objection is the unsightliness of the shacks during the summer season.

Missouri Water Storage Session Slated for Omaha

OMAHA. The second annual public meeting to consider the control and regulation of water stored in the Missouri River main stem reservoirs for the 1959-60 season will be held in Omaha April 30. The all-day session will be conducted by the Coordinating Committee on Missouri River Main Stem Reservoir Operations.

R. J. Pafford, Jr., who serves as chairman of the coordinating committee, said the meeting would be patterned after one held a year ago. Its purpose is to provide broadened opportunities for expression of public views on the river control program for the main stem reservoir system. Pafford also is chief of the Reservoir Control Center in the Army Engineers' division office in Omaha.

THE MEETING will be open to all interests affected by the multiple-purpose functions of the operating main stem reservoirs. Fort Peck in Montana, Garrison in North Dakota, Oahe and Fort Randall in South Dakota, and Gavins Point on the South Dakota-Nebraska border.

Pafford said the public meeting would be held in conjunction with the coordinating committee's regular spring meeting at which general criteria and objectives for the

lives of the water and eight federal agencies having authorities and responsibilities directly related to Missouri River operations. Persons desiring to attend the public meeting and present views concerning operation objectives are requested to make advance arrangements with and submit advance statements of their views to their state representatives on the Coordinating Committee. North Dakota representative is Milo W. Holsveen, State Engineer, Bismarck.

THE COORDINATING committee has been functioning for several years through periodic meetings and individual contacts to provide guidance to the Reservoir Control Center in operation of the main stem system. It assists in formulating plans for reservoir operations and agrees upon specific annual operating plans. Its meetings usually are held in April to outline criteria and objectives, followed by an August or September meeting to reach agreement on a finalized program of operation for the year ahead.

Pafford said the committee will welcome all constructive suggestions as to the best methods of operating the reservoirs in order to provide the most efficient use of this large storage system within

Garrison Area Irrigation Plan Will Be Studied

Bismarck Tribune
Gov. John E. Davis will discuss with the State Water Conservation Commission the proposed agenda for the forthcoming Missouri River States Committee meeting in Council Bluffs, Iowa, at the next meeting of the state water group here, Friday.

The 10-state Missouri River States Committee conference is slated for the following Wednesday. The committee is composed of the governors and two official delegates from each Missouri River state.

As chairman of the committee, Governor Davis will head the North Dakota delegation that includes Milo W. Holsveen, state engineer and also secretary of the committee; Herb Lyons, Jamestown; Al Weinhandl, Minot; and Fred J. Fredrickson, legislative consultant to the North Dakota Water Conservation Commission.

IN OTHER business, the State Water Commission will consider several items referring to planning and investigation of new projects and new construction starts on the Missouri River. Results of the North Dakota discussion will probably appear on the agenda for the big Missouri States Committee meeting in Council Bluffs, Holsveen noted.

The state commission will also consider a request for a survey of irrigation possibilities in the Douglas and Garrison Creek area near the city of Garrison. A considerable number of requests have been received from farmers and civic leaders in the region, Holsveen said.

A REQUEST for development and survey work regarding irrigation on the Little Muddy Creek northeast of Williston will also be discussed. In this case, two possibilities will be explored. One, the feasibility of impounding Little Muddy Creek waters and pumping it to higher lands for irrigation, and second, authorizing additions of ground water surveys in the same general area.

Construction work has started on the Schisak Lake Dam, the latest of Powers Lake, which according to Holsveen, will make an ideal recreation spot. The quality of the water in Schisak Lake is excellent for fish and wildlife propagation, he said. The Schisak Lake Dam will be constructed as a cooperative project between the Water Commission, the Game and Fish Department, Burke County Flood Control District, and the Burke County Board of Commissioners.

Irrigation To Be Big N. D. Gain

Bismarck Tribune
GRAND FORKS, N.D., April 1. W. Holsveen, chief engineer of the North Dakota State Water Conservation Commission, said the Grand Forks Kiwanis Club Monday there is a possibility that the Garrison Dam may already outweigh its positive benefits.

"However," he said, "the possibility to develop the greatest potential of the Garrison diversion unit still exists and it will require a concerted effort on the part of most North Dakotans to obtain this benefit."

HE SAID a valuable portion of the state's cattle industry has been removed through inundation of bottomlands. Another negative factor, Holsveen said, is that removal of 90 to 95 percent of the Indians from reservation areas has caused them to become wards of county, state and federal governments at a cost to the state and counties far exceeding the small revenue made available to communities from leased land.

Erosion is another big problem, he said, resulting from the tremendous capacity of the clear waters now released from the Garrison Reservoir to pick up silt and move it downstream.

Holsveen said development of the Garrison diversion project could insert a new vitality in the economy of North Dakota comparable to that which occurred in the State of Washington from the Columbia Basin project.

HE SERVED as chief engineer for the irrigation development section of that project for almost a year period.

"Well over 3,600 farming communities would be created and municipal water supplies for cities and villages would be realized. But and wildlife conservation benefits would be derived from the creation of 600,000 acres."

With water for industrial use, he said, a state population increase of 100,000 people could be foreseen.

5 Reservoirs Set New Mark

Williston Herald
OMAHA, April 1. The five operating reservoirs on the Missouri River have achieved a new high record in water storage, the Missouri River reservoir control center reported Friday.

This has resulted from the first near normal snow melt from the northern plains area in five years. The total on March 31 stood at 24,000,000 acre-feet, compared to a previous record high of 24,033,000 acre-feet last July. This year's incoming snow melt is yet to come, the center reported.

This water storage situation is expected to be an important item of discussion in Omaha April 30 when the coordinating committee on main stem reservoir operations holds its second public hearing on water use. This meeting permits broad public expression of all interests on the way the stored water should be used. The views are a guide to the committee which meets each year to operate the main stem reservoirs.

An earlier report, erroneously listed the state of water storage as April 1, instead of March 31. The current water storage is 2,500,000 acre feet more than was expected on March 31, and eight million acre feet greater than the available storage March 31, 1951.

Garrison Engineer Takes Over Work

Bismarck Tribune
RIVERDALE, N.D., Col. Walter Holsveen has assumed his duties as chief engineer of the Corps of Engineers. He and Mrs. Holsveen and their six children have moved into the district engineer's quarters in Riverdale.

Holsveen's successor, Col. Lynn W. Pine and is the seventh officer to

and will probably become one of
the state's best boating, hunting
and fishing areas.

City Flood Damage Nearly Million Dollars Since 1923, Say Engineers

(Wyo.) Sheridan Press, 7-3-39

Flood damage amounting to \$955,175 was suffered in Sheridan during the years 1923 through 1946, according to an Army engineers report.

Of this amount, \$363,720 is attributed to Goose creek, and \$591,455 to Little Goose creek.

The average annual loss for the period of record, 23 years, based on total damages listed . . . is \$12,314 per annum for Goose creek, \$25,715 per annum for Little Goose creek, and \$41,529 per annum for the combination of the two creeks," the report states.

For floods, the report says, have occurred in Sheridan in July and September of 1923, June 1933, March 1939, April 1943, and May and June of 1944. Information on the floods was obtained first hand from residents, newspaper accounts, charge records, and precipitation records. A complete field investigation was made immediately after the 1944 flood.

Minor floods have occurred in Sheridan, says the report, in June 1924, May 1923, June 1933, March 1936, June 1945, and June 1946. A complete field investigation was made immediately after the 1946 flood.

Minor ice jam floods have occurred on Little Goose creek on several other dates. The city was subject to free flow minor floods at other dates. . . . A major flood was reported in 1908 caused by rapid melting of 20 inches of wet snow. A major ice jam flood was reported to have occurred in 1883. Many other floods have occurred previous to 1923 but records are incomplete as to areas flooded, damage incurred, and the causes of the floods.

Floods for the 23-year period covered totaled 13. They results from four conditions or a combination of them. These were: Intense or general heavy rains over the Big Horn mountains, rapid snowmelt in the Little Goose or Goose Creek basins, ice jams above Coffeen avenue bridge on Little Goose creek, and ice jams against the diversion dam of the flour mill on Goose creek.

According to a summary, the two creeks created damages as follows:

July-Sept. 1923, \$112,680 Goose creek, and \$234,420 Little Goose; 1933, June, \$30,960 Goose creek; \$49,550 Little Goose; 1937, June, \$46,200 Goose creek, \$22,300 Little Goose; 1944, May-June, \$25,800 Goose creek, \$59,450 Little Goose; 1946, June, \$30,075 Little Goose;

flooding, the report states, are in general those areas adjacent to or within the meanders of Goose and Little Goose creeks.

Flood areas along Goose creek specifically are the Leopard and Lynx street area. The Beckton avenue and N. B. avenue area, Badger street areas as far north as Burkitt street and the Morrill street, Kendrick Park area.

Reviewing each of the major floods, the engineers study says: July-September 1923 — "On the night of 22 July an intense rainfall of 2.65 inches in two hours was recorded at Sheridan and heavy rainfall was general over the Big Horn mountains near Story. Little Goose creek overflowed its banks in the southern part of the city and filled basements with water and flooded the first floors of residences. Eight blocks of wood paving on Main street were destroyed by flood waters. An area east of the railroad tracks was inundated and a large grocery store in this area was severely damaged. . . . The city of Sheridan started a comprehensive paving program immediately following the July flood."

On Sept. 27, 1923, Goose and Little Goose creeks rose to flood stage caused by general heavy rains over the Big Horn mountains. Flood waters from Little Goose covered a wide strip from Gladstone and Gould streets to the C. B. and Q. tracks. Some homes were flooded on the first floors to a depth of five feet. The first floor and basements of business establishments were covered with water. The flood waters of Goose creek above the confluence with Little Goose inundated areas along the sharp bends of the stream.

Flood waters in Sheridan, the report continues, in 1923 damaged approximately 300 residences, gardens, business establishments, industrial establishments, the majority of the city's wood block paving, a large school, city utilities, telephone facilities and several bridges. The foot bridge in the city park was destroyed.

June, 1935 — Heavy general rains in the Big Horns caused both creeks to overflow their banks on June 14. The flood on Little Goose inundated the area above Coffeen avenue. About eight inches of water flowed over Avoch avenue from the south. Residences, an entire cabin camp, small business establishments, one industrial establishment, and telephone

inundated with six inches to three and one-half feet of water. About 30 residences, 10 truck farms, an industrial establishment, city utilities, and telephone facilities, were damaged.

June, 1937 — Heavy rains in the Big Horn mountains west of Sheridan resulted in a major flood on Goose creek and a minor flood on Little Goose. Flood waters on Goose inundated the Leopard street, Beckton, Badger, Morrill, and Kendrick park areas. Basements were filled, gardens and truck farms suffered costly damage, and several homes were flooded on the first floor. Water was three to four feet deep in some areas. The two creeks were above flood stage for a period of 36 hours and both carried a large amount of silt which increased the damage.

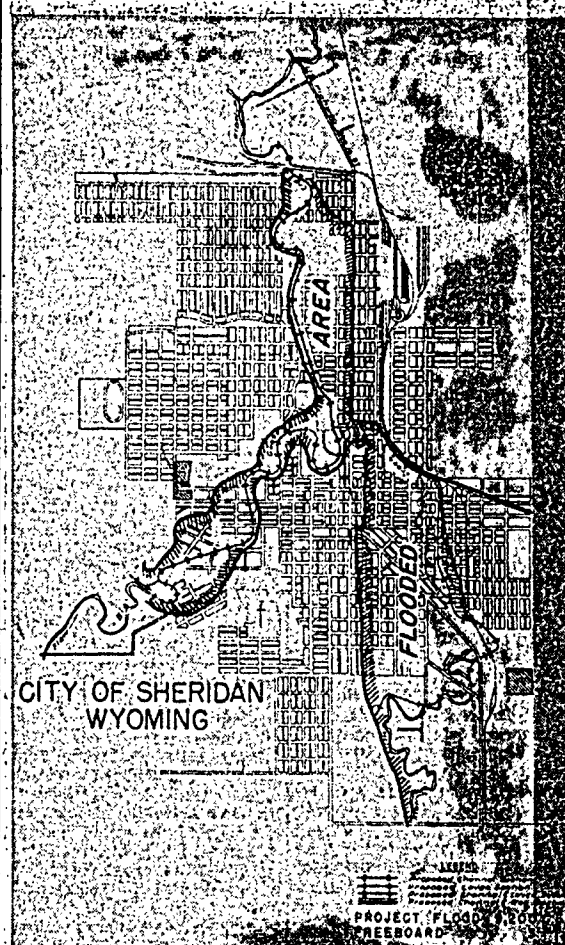
May and June, 1944 — A heavy rain on May 18 combined with rapidly melting snow in the Big Horn mountains resulted in flooding on Little Goose and Goose creeks on the evening of the 18th. Flooding occurred again on June 3 and 4 due to an intense local rainfall of 3.32 inches on June 3. Damage from the first flood occurred mainly along Big Goose Creek to residences, utilities and business establishments. The latter flood caused the most damage along Little Goose creek. Residences, truck farms, business establishments, and industrial establishments were damaged.

The report, which is part of city files on the \$2,000,000 flood control project proposed for Sheridan, does not cover any highwater or flooding after 1946 although some has occurred. There are no figures available on any damage after 1946. Around three years ago water did inundate the Thorne-Rider park area.

Discussing potential future damages, however, the engineer's report does say that a "recurrence of any of the past floods of record would inundate approximately the same areas as those in the past."

The population of the city of Sheridan has increased, as have normal business activity. The report says.

Flood Areas Illustrated



In this illustration, which was provided by the Army engineers, the general area of Sheridan flooding, which has occurred, is shown. The flooded area involves 850 acres. Average height of levees proposed under the flood control program is 14 feet, and the length of levees is 41,400 feet. Average width of levees is 14 feet, and length is 3,080 feet. Average width of levees is 14 feet, and length is 12,700 feet. The project was authorized by the 1950 flood control act, approved by Congress, and the purpose of the program is for protection of residences, commercial establishments, public buildings, streets, and utilities against floods on Goose and Little Goose creeks.

118,000. Areas of the city subject to street and Morrill street areas were

Good Water Supply Seen For Missouri Tributaries

HELENA, (AP) — A generally good supply of water was forecast Monday for the Missouri River and tributaries in Montana.

The Weather Bureau said water would be adequate to plentiful in all streams except locally in the Tongue and Powder River drainages in the southeastern corner of Montana.

March precipitation averaged only 50 per cent of normal over the Missouri basin above Fort Peck. However, changes in expected supplies in the major tributaries were small.

The outlook now is for a flow of 6,430,000 acre-feet into Fort Peck Reservoir in the water year ending Sept. 30, or 96 per cent of an average year's supply, the bureau said.

Missouri tributaries above Canyon Ferry are expected to run from only 83 per cent of a normal year on the Red Rock River to 99 per cent of normal on the Gallatin River. The flow into Canyon Ferry should be about 90 per cent of normal.

The Sun, Marias, and Musselshell rivers are all expected to have greater than normal water supplies.

The Milk River is expected to run over 20 per cent more than in a normal year at Eastern Crossing, where that stream enters Montana from Alberta.

March precipitation was also subnormal over most of the Yellowstone basin. This results in a decrease in expected supplies at Sidney to eight million acre-feet in the water year ending Sept. 30 or 87 per cent of normal.

At Billings the flow should be about 82 per cent of normal for the year. Other points along the main stem are running very close to 90 per cent. On the Shields River a plentiful supply of 120 per cent of a normal water year is expected. But along the Tongue River expectations have had to be reduced to only 70 per cent of a normal year, indicating some possibilities of shortages in that area unless spring and summer precipitation holds up well. The Powder River is expected to do only a little better, from 71 to 79 per cent of a normal water year.

The Weather Bureau added: "Taken together, the figures indicate that adequate water supplies should be available in Montana, east of the Continental Divide."

vide, in the 1959 water year with the possibility of some shortages on a few Lower Yellowstone River southern tributaries.

Warning Given On Dam Threat

MISSOULA, (AP) — A railroad official Wednesday warned that no Montana river valley will be safe from water resource predators if Congress gives a go-ahead to the proposed Knowles and Ninemile Prairie dams.

John W. Haw of St. Paul, agricultural development director for the Northern Pacific Railway Co., spoke at a Missoula Rotary Club luncheon.

His prepared talk appealed to western Montanans to save their valleys from the power-mad, channel-hungry carpet baggers from down river.

He reminded his audience that an Army division engineer has recommended Knowles Dam on the Flathead River for construction while the Reclamation Bureau has proposed the Ninemile Prairie Dam on the Blackfoot.

If Army Engineers approve these projects, bills will be introduced in Congress and assigned to committee for hearings.

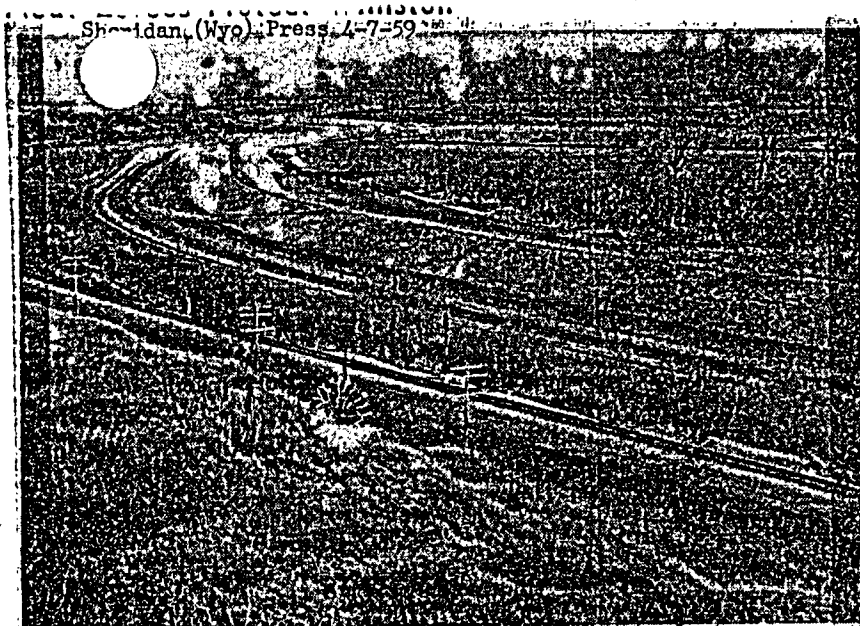
"Then," said Haw, "western Montana will have its last chance to protest the sacrifice of its water, its valleys and its industrial future before congressional committees."

Haw said "public power" and barge transportation proponents have misled many western Montanans with representations that heavy industry will be attracted to sites near these dams because of low power costs.

That, he said, is the exception, not the rule. Losses by failure of industry located near Garrison, Fort Peck, and Canyon Ferry on the Missouri.

The aluminum industry has shown no interest for several years in further Pacific Northwest expansion. Rather, it has sought locations in the Ohio and Mississippi Valleys, where raw materials can be brought in and finished metal products can be marketed at lower transportation costs.

Haw said "forest product industries, such as the recently established Waldorf Paper Products Co. and the Plum Creek Lumber Co., as well as those which process farm products, are the type which apparently western Montanans must seek."



This is a view of state one levees built by the Army Engineers to protect the city of Williams, Idaho, from possible inundation by rising waters of the Snake River. The levees were built by the U. S. Army Engineers to protect the city of Williams, Idaho, from possible inundation by rising waters of the Snake River. The levees were built by the U. S. Army Engineers to protect the city of Williams, Idaho, from possible inundation by rising waters of the Snake River.

Corps Invites More Bids For Second Plant

The Army Corps of Engineers is inviting bids for additional equipment to be installed in connection with the second power plant at Fort Peck.

Capt. Malcolm D. Johnson, executive officer, U. S. Army Engineer district, Garrison, Riverdale, N. D., said bids will be opened about May 14 for switchyard steel and equipment to be delivered P. O. B. railroad cars. Included in the contract will be steel for switchyard structures, outdoor group disconnecting switches, lightning arrestors, insulators, potential devices and other auxiliary equipment. Delivery is to be not later than May 1, 1960.

Bid opening is scheduled about May 19 for main control switchboards. The contract will include switchboard panels, flowmeters, water level recording, transmitter, battery charger, motor generators and spare parts. Delivery deadline of May 1, 1960.

U. S. Engineer Corps Bans Sun Project

Washington, D. C. — The U. S. Army Corps of Engineers has banned a proposed sun project from the upper Snake River drainage.

A report by the Corps' R.M. Barney, division engineer, said: "It is not possible to find a technically justifiable location for projects of this type."

Barney said the Corps has since sufficient local interest to furnish the required technical cooperation was not apparent.

However, Barney said, "flood protection projects for the Snake River, authorized in the 1930s, are still being studied."

The Corps is studying the possibility of building a dam at the mouth of the Snake River, which would provide flood protection for the city of Pocatello, Idaho.

Sheridan Flood Project Opposed

Sheridan, Wyo. — A petition has been filed with the City Council asking that the city oppose a proposed flood control project for the Snake River.

The petition states the city believes the project is based on unsubstantiated and misleading information as to the cost to the city.

The petition states the city definitely sets forth that a bond issue apparently is not contemplated, and the city's share of funds should not be used for the project.

In the proposed project, miles of levees would be constructed, and the city's share of funds would be used for the project.

by using subsidized power pro-
duced at government dams.

San Francisco, March 26.—The
opening in the Garfield Hotel
here by the Corps of Engineers here
last yesterday, the bid was
\$134,900. The government estimate
for the job was \$164,932.10.

A protest against President Eisenhower's recommendation that no new projects be started in the Missouri River flood control and land reclamation program has been organized by governors and other officials in the river basin states.

At a meeting here Wednesday 30 members of the Missouri River States Committee expressed opposition to the President's economy move under which additional funds would be allotted only for current projects in the five-billio dollar basin program.

This meeting was arranged by Republican Gov. John E. Davis, of North Dakota, chairman of the states committee.

In the interest of economy the President had left about a dozen Missouri Basin projects out of his budgetary recommendations but proposed sizable amounts for some current basin projects.

The states committee convened a day in advance of the meeting today of the Missouri Basin Inter-Agency Committee here.

The group decided to send a statement to the House Appropriations Committee urging continued orderly development of the huge basin program launched in 1944.

Those who met Wednesday included three governors and representatives of seven other governors in the basin states as well as Colorado and Wyoming.

In addition to Davis two Democratic governors attended, Herschel Loveless of Iowa and Ralph Hersth of South Dakota.

The President had omitted from his budget reservoirs and flood control work in Kansas, Nebraska and Iowa as authorized by the Corps of Engineers, and Bureau of Reclamation projects in Kansas, Montana and Nebraska.

Loveless expressed disappointment that Iowa has not received very much money in the basin allocations as compared to other states.

He said the Saylorville Dam and the Howard Red Rock Dam on the Des Moines River above and below Des Moines should be started now but no allocations have been made.

Loveless said Iowa had used no reclamation funds since 1948 while other states have received about \$50 million dollars. He also said that since 1938 Iowa has received only 42 million dollars for flood control while a total of 700 million was allocated elsewhere in the basin.

MBIAC Told Outlook For River Better

COUNCIL BLUFFS, Iowa (AP) — The Missouri River appears better able to meet the demands of the multiple purpose development plan than it was nine years ago, the Missouri Basin Inter-Agency Committee was told today.

Total water development anticipated through the year 2020 would still leave a small surplus during normal flow years, according to a sub-committee report prepared for the 106th meeting of the committee.

This subcommittee report was a re-study of a comprehensive adequacy of flow study made in 1950 and published in 1951. The report reaffirmed the 1951 finding that the flows of the Missouri are sufficient to provide for the irrigation, power production, navigation, water supply and sanitation demands programmed.

Wendell E. Johnson, chief of the engineering section of the Missouri River Division, engineer's office and chairman of the subcommittee, said there have been two developments since the 1951 report which would affect long range water utilization under the authorized program. One is a reduction in irrigation water requirements. The other is an increase in hydro power generating installations at the main stem system of dams. Other factors remain unchanged.

Johnson's report pointed out the anticipation development of irrigation apparently will not be as great as calculated in 1951. At that time it was estimated irrigation projects would deplete the water supply by 7,711,000 acre feet by the year 1990. He said it now appears the maximum annual irrigation requirements will be about 6,384,000 acre feet in 2020.

This reduction, he said, will postpone by 20 years the time when a recurrence of the 1930s would require curtailment in the navigation season.

Johnson said in 1951, planned power installations amounted to a capacity of about 1,500,000 kilowatts, but that figure now has been upped to more than two million kilowatts.

Brochure Told For The Public

Expanded and improved information on irrigation was the theme of a large decisions made at the Harvey meeting of the Garrison Conservancy District's board of directors this week.

Three measures dealing with irrigation education were endorsed by the board.

Directors passed a resolution urging Congress to expand its irrigation research program in North Dakota.

They endorsed a proposal by the directors of the various irrigation districts to form a district directors' association.

They authorized publishing 50,000 copies of a brochure designed to inform the general public on the purpose and benefits of Garrison diversion.

OF GREATEST CONCERN to board members was the problem of continuing irrigation research in this state. Spokesmen point out that Garrison diversion contemplates 10,000 farmers converting to irrigation. If this is done, they say, it is going to take a lot of research and information.

The resolution urges Congress to appropriate adequate funds to permit the Agricultural Research Service to inaugurate an expanded irrigation research program in North Dakota.

THE DIRECTORS urge that the research into irrigation under the federal program be combined with the state plan to develop a section of land near Carrington for an irrigation experiment station.

voted by the Legislature and the Conservancy District Board. "Believes that the most efficient and economical way in which to obtain the essential research data is through a program accomplished by the cooperative efforts of the Agricultural Research Service and the North Dakota Agricultural Experiment station at Carrington."

They point out that the Carrington location is typical of the soils, climate, topography and drainage of the Garrison Diversion project and will provide a permanent site for a continuing irrigation research program in the state.

ON THEIR OTHER two information projects, directors say that formation of a district directors' association is virtually a certainty with organization tentatively scheduled for July. Objective of this group is to provide a means to exchange ideas and problems and to coordinate their development efforts.

The brochure will be a colored and illustrated publication written in a manner that will be easily understood by the general public. It will cover the various advantages irrigation is expected to provide for North Dakota.

IN URGING continued and increased research on irrigation, the board made three major points:

- Information is needed on ways and means of efficient soil management under irrigation.
- Information is needed on the probable effects of this mass irrigation program in a sub-humid dry farm area on possibilities of waterlogging and salinizing of soils.
- Further study is needed to determine the most efficient water management practices under this climate.

New anti-erosion methods may be necessary in this area where intensive rainfall may occur on lands that have been recently irrigated.

Crop management demands research for breeding and selection of crops especially adapted to irrigation in this area.

There is a need to know the ultimate of irrigation development on the economic and social welfare of the state.

Stored Water At New High

OMAHA (AP) — The five major reservoirs of the Missouri River have achieved a new record in water storage, the Missouri River reservoir control committee reported today.

This has come from the first year normal March runoff from the northern plains area in five years. The total as of March 31 stood at 24,000,000 acre feet compared to a previous record high of 24,033,000 acre feet last July. This year's mountain snow melt is yet to come, the committee reported.

This water storage situation is expected to be an important item of discussion in Omaha April 20 when the coordinating committee on main stem reservoir operations holds its second public meeting on water use. The meeting is the broad public expression of all interests on the way they feel the stored water should be used. The views are a guide to the committee which plans each year the operating schedules of the five big reservoirs.

An earlier report expressed the date of the public hearing as April 10, instead of April 20. The current water storage is 2,500,000 acre feet more than was expected on March 31, 1953, and eight million acre feet greater than the available storage March 31, 1951.

Public Backing Of Garrison Diversion Stressed By Short

WILLIAMSON, N.D., April 16 (AP) — Importance of an emphasis on the Garrison Diversion program by the people of North Dakota and particularly those who will be directly affected by it was stressed here today by Rep. Don L. Short (R-N.D.).

Short spoke at a quarterly meeting of the Garrison Conservancy district board of directors. He said there must be a continued emphasis on the part of North Dakotans in support of the project if it is to be approved.

He said the project is a production of the people. There are subsidies. Said Short, the size of the project is such which will be of national importance because of the period required for completion. This also must be stressed when we talk of the project. This project will mean a new product in the land won't be a factor in agricultural production for many years.

Short cited the water crisis of several North Dakota communities.

which will divert water from
the Garrison Reservoir to the
irrigation of 1 million acres.
Shore outlined the objections
voiced to the project by the
eastern areas, those of principal
ly on two grounds: that there is
a reluctance to start new spend-
ing programs, and that the pro-
ject will increase agricultural

referring to the flooding of
thousands of acres of the
Garrison Reservoir, and the
substantial loss of tax revenue to
the state. Shore said that the
contributed to the loss of tax
faith, and that the completion of the
project at the earliest possible
date.

Fort Peck Reservoir Gain Total Of 789,000 Acre Feet In Month

Glasgow (Mont.) Courier 4-16-59

As a result of the first near normal March runoff from the northern plains area in five years, a new high record storage of water in the main stem Missouri river reservoir was achieved on March 31, the Missouri river reservoir control center at Omaha reported.

On that date combined storage in the four operating main stem dams stood at 24,096,000 acre feet. The previous high total, 24,033,000, was established in July, 1953, after most of the seasonal mountain snow melt runoff had been accounted for. This year's mountain snow melt is yet to come.

During March, 1959, water storage in the main stem system gained about 3,000,000 acre feet, substantially higher than was experienced in any March rise since the first storage reservoir below Fort Peck became available in 1954. The average runoff for the past five years has been less than three-fourths of normal.

Fort Peck showed a gain in storage of 789,000 acre feet. An acre foot is the amount of water required to cover one acre to a depth of one foot.

This improvement in main system storage to meet multiple-purpose requirements of the basin river control program is further illustrated by comparison with the situation a year ago on March 31, when 2,500,000 acre feet less water was in storage. The current storage figure is about 8,000,000 acre feet greater than was available two years ago on March 31, the center reported.

The water storage situation is expected to be an important item of discussion at the public meeting scheduled by the coordinating committee on main stem Missouri river reservoir operations to be held April 30 in Omaha. All persons desiring to express their views on operating schedules for the main stem reservoirs have been invited to attend.

Beginning on March 26 releases were gradually increased so as to bring flows at Sioux City, Iowa, to

full navigation level on April 1. March snows and rains brought flows below Kansas City to moderately high level, without reservoir water, and the first commercial towboat entered the river on March 28, or 15 days ahead of the scheduled April 10 opening date.

Total power generation at the four operating power plants in March amounted to 217 million kilowatt hours, an eight percent gain in power production over

March, 1958. Water scheduling in March, 1959 was balanced out to facilitate maximum feasible power production; scheduled Garrison releases averaged higher than at Fort Randall and Gavins Point. Excess Garrison water above lower river winter requirements was captured in Oahe and Fort Randall, where it will be saved to meet downstream spring and summer requirements.

Total power generation at Fort Peck during the month was 57,000,000 kilowatt hours, with releases amounting to 450,000 acre feet, all passing through the power turbines.

Records of the reservoir control center show that a total of 217,000,000 kilowatt hours of electricity was generated at the four main stem plants in March. The peak coincidental power generation was 574,000 kilowatts between 11 a.m. and 12 noon on Monday, March 30.

April operations will continue to follow the 1958-59 plan approved by the coordinating committee. Gavins Point releases are expected to be in the 18-25,000 c.f.s. range as necessary to provide seasonal minimum flow requirements downstream. The Gavins Point pool will be lowered gradually so as to reach the spring-summer base of flood control at elevation 1204.5 m.s.l. by April 15. Fort Randall releases will be adjusted so as to back up Gavins Point with the pool fluctuating in the 1355-1360 range of elevation. Fort Peck and Garrison releases should rise a little more early April and then remain relatively constant for the remainder of the month.

Missouri River Billings Gazette Hearing Stated

HELENA (AP) State Engineer Fred E. Buck Thursday said Deputy State Engineer Summer Heffel will represent Montana at an April 30 Omaha public hearing on Missouri River problems.

The Coordinating Committee of the Missouri River Mainstem Reservoir Operations is comprised of representatives from nine states and eight federal agencies. It meets twice a year to plan control of water in the reservoirs but this is a special session.

There have been complaints about the operations of the reservoirs at an earlier hearing complaints were aired.

A second similar hearing will be held April 30. The committee will also meet the next day.

State Engineer Fred E. Buck said, "I'd like to have some representatives there from Montana. We have received complaints about the lowering of the Fort Peck Reservoir and the development and allocation of power from Fort Peck. If anyone wishes to be heard on these or other complaints they should attend this hearing. Buck will be attending a Columbia River Compact Commission in Portland, Ore. May 1 and 2."

Start Stated On Glendive Flood Control

WASHINGTON (AP) — Work on a Yellowstone River flood control project at West Glendive, Mont., where hundreds of trailer-housed families were forced away recently by high water, will begin early next month.

The Corps of Engineers Friday announced that a \$164,830 contract for the local project was awarded to Gus M. Albert and L. P. Anderson of Miles City, Mont.

They will start work about May 7 and are to complete the project by Nov. 15. Sgt. Mike Mansfield

City States Financial Ability In Flood Control Project Plan

Sheridan Press 4-16-59

New and relocated bridges at West Fifth and Lewis streets will be financed by general obligation bonds, the city has told the Army Engineers.

The statement appears in an April 21 letter written by City Attorney Bruce P. Badley to Malcolm Johnson, executive officer, United States army engineers, Garrison district, Riverdale, S. D.

In the letter the city states information concerning its financial ability in the project and the extent of the bridges was included in this connection.

It also says that street improvements and improvements affecting new bridge construction at West Fifth street and Lewis street will be financed as a part of the flood control project.

The maintenance and operation of the completed project has been established as a municipal function and funds for this purpose will be allocated annually, the letter says.

That portion of the letter dealing specifically with financial ability was as follows:

"Concerning the financial ability of the city of Sheridan on the proposed flood control project, the

following information is submitted for your information: The assessed value of the city of Sheridan is \$12,092,830.

The general levy is 8 mills, producing \$103,949 annually. Additional operating revenues are estimated at \$279,705.

There is currently appropriated \$100,000 for a flood control project.

It is estimated that the city currently has a reserve of \$20,000. The city has a general obligation bond issue of \$100,000.

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Garrison Engineer To Speak Wednesday

Glasgow (Mont.) Courier 4-16-59

Col. Walter H. Price, district engineer, Garrison district, will make his first visit to Glasgow and vicinity next Wednesday, April 22, when he will be the guest speaker at the meeting of the Upper Missouri River Society of American Engineers.

Price will include experiences in engineering and service in Korea, where he served as assistant district engineer. Price, a native of Oregon, announced that Colonel Horner will be preceded by a social hour beginning at 6 p.m. and a social hour and dinner at the base dining hall on completion of the tour. Col. Beverly Car-

announcements this week. Price said. Others interested in the society membership or in attending this meeting should either call Price at Fort Peck or Major Frank Bense at Glasgow AFB by Monday, May 1. R. Downes, president, said.

The meeting of the Upper Missouri River Society of American Engineers will be held at the base dining hall on completion of the tour. Col. Beverly Car-

Banks at West Glendive, unincorporated community just west of the Dawson County seat of Glendive. This caused hundreds of trailers belonging to oil workers and their families to be evacuated from the lowland area.

of the Engineering School at Fort Belvoir, Va., and of the Army's Command and General Staff College at Fort Leavenworth, Kas. He is a master parachutist, having served frequently with airborne units during WW II. AFCE members will receive free

Flood Could Bring Havoc To Sheridan

It is good that Sheridan is discussing flood control. It is good that opposition is being expressed, for this is basic to final decisions.

Sheridan needs to be concerned about flood control. Here is a community situated on the edge of the Snake River. The creeks run through it, and for miles around its city limits. Here is a town with a watershed right at its backdoor, a watershed representing both blessing and curse. Snow melt-off alone, or combined with heavy rains can and has resulted in high water and flooding. The hazard is ever present and ever real.

Hardly a year goes by that snow melt-off alone does not fill creek channels. Only a rain of an inch or two would be necessary to make the hazard a serious reality. Only a little could send water flooding into residential and business areas. Considering development in these sections over the years, damage would amount to considerably more dollar wise than any reported in the past. And it wouldn't take a major flood of disaster proportions.

Any community in this situation long ago should have been a lot more concerned about flood control. It should be particularly hesitant and particularly thoughtful now about dumping such a suggestion. It should consider the hazards thoroughly.

A petition has been given city councilmen asking them to forget the currently proposed project. But we would petition the city council not to forget flood control.

In the first place, Sheridan can not safely be against flood protection of some kind. Whether or not past damage figures are exaggerated, or project estimates are open to question, the record shows Sheridan has had floods. To date nothing of consequence has been done to insure against repeat performances.

Up to this time there has been no flood control project proposed by any group within the community, by local government, or by any other governmental agency. Obviously the city has made no move because it could not design and finance an adequate flood protection program. Obviously the only way Sheridan will get adequate flood protection is with the help of federal funds—those nasty federal funds provided by those nasty taxpayers, a great many of whom live in Sheridan, Wyo.

The Army engineers have designed what they feel is an adequate and feasible project. Its main drawback is it's the only project, it's easy to snipe at, and easy to keep on the offensive. But its main strength is that no one has proposed anything else which meets the requirements of adequacy and financial feasibility.

All of two years ago this flood control project was started. There have been a good many meetings, most of them open to the public, and few of them well attended. Still there is no counter proposal.

Because it is the only plan offered thus far, and because the city by no means can finance one of its own, the community would be foolish, to junk the current proposal.

It would only mean we continue to live with the hazard—flood.

There are other aspects which make the proposed flood protection plan more attractive. In the first unit, with the channel being run through the mill race, future rebuilding and future maintenance of three bridges will be eliminated. And bridges are expensive items.

We can brag all we want about our beautiful streams, but there are sections that look like the city dump. Flood control would clean these up and we could say with all honesty, "Look at our beautiful streams."

With only the completion of the first unit, extension of Brooks street clear through would become possible. And along with it development of additional real estate.

Everyday someone complains, because Sheridan does not have enough payrolls. Here is a payroll. Here is a benefit to the local economy just as \$3,000,000 worth of interstate highway is a payroll.

And there will be other benefits not now visible. Certainly there are going to be some sacrifices. But at no time do we build anything without sacrifice.

One of the present concerns is whether or not other municipal services will be sacrificed to the flood control program. We doubt if there is an answer to this. Too much depends on too many things such as right-of-way costs, the rate at which money will be needed and a hundred other details which can arise as a project of this kind proceeds.

But flood control is important. It is certainly a secondary item, and it certainly deserves a consideration over and above other municipal services. And besides, floods have been known to wreck streets, and other city facilities, just as easily as they get into basements and living rooms.

Our petition to the city council is simply this: Look at the record past and recent, there have been floods and there is no guarantee that flooding of equivalent scope or worse will not strike.

There are other benefits besides flood protection. Flood protection can certainly take its place ahead of other contemplated activities.

Look at all these things, and then see how easy it is to forget flood control.

Flood Control Plan Facts Presented Lions

The first installment of a two-part discussion on the proposed Sheridan flood control project was heard Tuesday by the Sheridan Lions club.

Presenting facts were Robert Miller, city councilman; Maurice Cole, city manager; and Dick Wright, city engineer.

Donald Sump and Basil Dean of Sheridan and Orr Garber of Big Horn, who oppose the plan, will be heard next week. They were present at yesterday's luncheon meeting at the Western Coffee shop.

Whether or not there is a flood control project, with its multi-benefits to the city, Cole stated voters will be asked by the city

council to approve a bond issue for bridges, street relocations, and the mill race crossing. Many of these problems must be faced with or without federal assistance.

The project was initiated in 1949 by Sheridan citizens. Funds for the initial phase of construction were appropriated for this fiscal year. By Congress and bond are expected to be let soon (April was once scheduled as letting date) by the Army engineers, who are in charge of the project.

The city council, explained Miller, feels the project is the base for many more civic improvements, and in addition, to flood protection offers imminent relief from the necessity of replacing several bridges which will be eliminated by the project plus opportunities for traffic improvement and other benefits. The bridge replacement is estimated at \$100,000 or more.

Channel changes would eliminate the Dow, Alger and Jefferson street bridges and would permit the extension of Brooks street (now a dead end) north to Val Vista. New bridges across Little Goose creek on Brooks and Gould would give the city four north-south streets instead of the present two (Main and Broadway) and would facilitate movement of traffic.

Wright displayed maps of the project area, explaining channels, levees and bridges. The Army plans call for a channel carrying 9,300 cubic feet a second at the north edge of Sheridan, or more than the 7,500 cubic feet per second of the great 1923 flood.

City Manager Cole said the city can finance its share of direct flood control costs during the construction period for several years without increasing taxes or curtailing other municipal services.

As for the cost of the project, entails federal money for \$1,600,000 and city money for \$200,000. City officials told the club they expected to spend less than that amount.

Cole said \$200,000 in the current year's budget for the project. This amount was realized by consolidation in city office and elimination of duplications and waste, he said.

As an example of savings to the city possible under the flood control project, Cole said Army engineers reported footings could be constructed for Brooks and Gould street bridges for \$3,000 at the time the Little Goose concrete chute was installed—a sum far less than would be done separately. Another \$10,000 in city blocks not now in the state of flood

River Work Start Planned at Lovell

BILLINGS GAZETTE
WASHINGTON (AP) — Improvement work is to begin about May 4 on banks of the Shoshone River at Lovell, Wyo., Rep. Keith Thomas said.

Illinois Firm 1-18-59 Low Bidder On Draft Subgrates

RIVERDALE, ILL. (AP) — An Illinois firm submitted the lowest bid among 13 proposals received for supplying draft tube water and

upgrading the river bank by excavating
trenches and placing riprap.
Completion is due July 2.

Benett Thomas, 1111
tan, 1111, bld. \$18,000. This contract
specifies delivery on or before
March 1, 1960. The contract was
Bids were opened in the engi-
neers' district office here.